

The Danish Resources c. 1000–1550

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The Northern World

North Europe and the Baltic c. 400–1700 AD
Peoples, Economies and Cultures

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VOLUME 34

The Danish Resources c. 1000–1550

Growth and Recession

By

Nils Hybel and Bjørn Poulsen



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Cover Illustration: Haymaking in July with a long-handled scythe from a Danish calendar (1513) (Ny Kgl. Samling 901 12). By kind permission of The Royal Library, Copenhagen.

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CONTENTS

Abbreviations	vii
List of Illustrations and Maps	ix
Introduction	xv
 The Natural World	 1
Woods and Moors	3
Arable Land	25
Marine Resources	45
Climate	59
 Human Resources	 79
Knowledge and Literacy	81
Population	111
 Rural Life	 141
Villages	143
Manors	165
Rural Resources	197
 Urban Industries	 225
Towns and Markets	227
Crafts	259
 Tax and Trade	 297
Rural Levies and Royal Finances	299
Money	323
Commodity Trade	353
 Growth and Recession: A Synthesis	 381
 Bibliography	 403
 Index of Persons and Places	 431
Subject Index	441

ABBREVIATIONS

- AB* *Adam von Bremen. Hamburgische Kirchengeschichte*, ed. Bernhard Schmeidler, (3. ed), (Hannover and Leipzig, 1917).
- DCH* *Dronning Christines Hofholdningsregnskaber*, ed. William Christensen (Copenhagen, 1904).
- DD* *Diplomatarium Danicum*, 1. ser., 1 ff. (Copenhagen, 1938 ff).
- DDR*, 1 *Den danske rigsglovgivning indtil 1400*, ed. Erik Kroman (Copenhagen, 1971).
- DDR*, 2 *Den danske rigsglovgivning 1397–1513*, ed. Aage Andersen (Copenhagen, 1989).
- DDR*, 3 *Den danske rigsglovgivning 1513–1523*, ed. Aage Andersen (Copenhagen, 1991).
- DF* *Diplomatarium Flensborgense. Samling af Aktstykker til Staden Flensborgs Historie indtil Aaret 1559*, ed. H. C. P. Seidelin, vols. 1–2 (Copenhagen, 1865–73).
- DGK* *Danmarks gamle Købstadslovgivning*, ed. Erik Kroman, vols. 1–5 (Copenhagen, 1951–61).
- DGLK* *Danmarks gamle Landskabslove med Kirkelovene*, vols. 1–8, eds. Johannes Brøndum-Nielsen e.a. (Copenhagen, 1932–61).
- DGLM* *Danmarks Gilde- og Lavsskraaer fra Middelalderen*, ed. C. Nyrop, vol. 1–2 (Copenhagen, 1899–1904).
- DhD* *Dueholms Diplomatarium. Samling af Breve 1371–1539, der i sin Tid ere opbevarede i St. Johannesklostret Dueholm paa Morsø*, ed. Oluf Nielsen (Copenhagen, 1872).
- DKR* *Danske Kancelliregistranter 1535–1550*, eds. Kristian Erslev and W. Møllerup (Copenhagen, 1881–82).
- DM* *Danske Magazin*, 1 ser., vol. 1 ff. (Copenhagen, 1745 ff).
- DMA* *Danmarks middelalderlige annaler*, ed. Erik Kroman (Copenhagen, 1980).
- DMR* *Danske middelalderlige Regnskaber*, 1. ser., vol. 1, Hof og Centralstyre, ed. Georg Galster (Copenhagen, 1944–53); 3. ser., vol. 1, Roskildebispens Jordebøger og Regnskaber, ed. C. A. Christensen (Copenhagen, 1956).
- EGJ* *Fru Eline Gøyes Jordebog med tilhørende Brevuddrag*, ed. A. Thiset (Copenhagen, 1892).

- FFR* *Kong Frederik den Førstes danske Registranter*, eds. Kristian Erslev and W. Møllerup (Copenhagen, 1879).
- HT* *Historisk Tidsskrift*, 1. ser, 1 ff. (Copenhagen, 1840 ff.).
- KB* *Kancelliets Brevbøger vedrørende Danmarks indre Forhold* (Copenhagen, 1885 ff.).
- KD* *Københavns Diplomatarium*, ed. Oluf Nielsen, 1–8 (Copenhagen, 1872–87).
- KLNM* *Kulturhistorisk leksikon for nordisk middelalder*, eds. Allan Karker et al., 1–22 (Copenhagen, 1956–78, 2. ed. Copenhagen, 1982).
- KVJ* *Kong Valdemars Jordebog*, ed. Svend Aakjær, 1–3 (Copenhagen, 1926–45).
- QS* *Quellensammlung der Schleswig-Holstein-Lauenburgischen Gesellschaft für Vaterländische Geschichte*, 1–7, Kiel 1862–1913.
- RA* Rigsarkivet, Copenhagen.
- Rep.* *Repertorium diplomaticum regni Danici mediævalis. Fortegnelse over Danmarks Breve fra Middelalderen med Udtog af de hidtil utrykte*, 1. ser., eds. Kristian Erslev, William Christensen and Anna Hude, 1–4 (Copenhagen, 1894–1912); 2. ser., ed. William Christensen, 1–9 (Copenhagen, 1928–39).
- RO* *Samling af Adkomster, Indtægtsangivelser og kirkelige Vedtægter for Ribe Domkapittel og Bispestol, nedskrevet 1290–1518, kaldet "Oldemoder" (Avia Ripensis)*, ed. Oluf Nielsen (Copenhagen, 1869).
- Saxo* *Saxo Grammaticus. Gesta Danorum. Danmarkshistorien*, eds. Karsten Friis-Jensen and Peter Zeeberg, 1–2 (Copenhagen, 2005).
- SM* *Scriptores minores historiæ Danici mediæ ævi*, 1–2 (Copenhagen, 1917–20).
- SRD* *Scriptores rerum Danicarum mediæ ævi*, 1–9 (Copenhagen, 1772–1878).
- SS* *Samlinger til den danske Historie*, ed. P. F. Suhm, 1 ser., 1–2. ser., 4 (Copenhagen, 1779–95).
- VSD* *Vitæ Sanctorum Danorum*, ed. M. Geertz (Copenhagen, 1908).
- ÆDA* *Ældste Danske Archivregistraturer*, 1–4, eds. T. A. Becker, C. F. Bricka, W. Christensen (Copenhagen, 1851–1910).
- ÅDJ* „Kannikebordets jordebog 1313“, *Århus Domkapitels Jordebøger*, 3, ed. Poul Rasmussen (Copenhagen, 1975).

LIST OF ILLUSTRATIONS AND MAPS

Introduction

<i>Map 1</i>	xxiii
--------------------	-------

Map of the medieval kingdom of Denmark

(Source: *Medieval Farming and Technology. The Impact of Agricultural Change in Northwest Europe*, ed. Grenville Astill and John Langdon (Brill, 1997), p. 115).

<i>Illustration 1</i>	xx
-----------------------------	----

Plate of lead found in King Valdemar I's (1157–1182) burial place in Ringsted. The Latin inscription on one side of the plate tells us that the king conquered and Christianized Rügen (1168/69). The other side records that the king ordered the great rampart in southern Jutland, Dannevirke, built of bricks, and also a castle on the island of Sprogø in the Great Belt.

(Photo: Department of Medieval and Renaissance Archaeology, University of Aarhus).

Arable Land

<i>Illustration 2</i>	40
-----------------------------	----

Kliplev Church in eastern Schleswig is one of the churches in this part of the country which was considerably extended in the fifteenth century. The extensions of church buildings reflex late medieval expansions of settlements. The construction of the chapels of the church in Kliplev, however, is also a manifestation of local religious competition between noblemen.

<i>Map 2</i>	42
--------------------	----

The Ratio of Cultivation in 1682–83. No data from the Duchy of Schleswig.

(Cartographical Documentation Centre, University of Southern Denmark, Forest and Nature Agency)

Marine Resources

<i>Illustration 3</i>	53
-----------------------------	----

From the end of the twelfth century large-scale herring fishery was conducted from Cap Falsterbo in southern Scania. The taking of herring became the basis of an important export and markets developed at Skanør and Falsterbo. About 1225 the Danish king built a castle to secure his dues from the Scania markets. The picture shows the castle-mound at Skanør.

(Photo: Department of Medieval and Renaissance Archaeology, University of Aarhus).

Knowledge and Literacy

<i>Illustration 4</i>	93
-----------------------------	----

Page from the so-called ‘hovedstykket’ in “King Valdemar’s Survey”, from about 1231. The Latin text shows accounts of the royal revenues of southern Jutland.

(Photo: Rigsarkivet, Copenhagen).

Population

<i>Map 3</i>	116
--------------------	-----

The distribution of medieval parish churches in Denmark

(*Historisk Atlas Danmark*, ed. Jette Kjærulff Hellesen and Ole Tuxen (Copenhagen, 1988), p. 58)

Manors

<i>Map 4</i>	169
--------------------	-----

The distribution of farms belonging to the two Sealand manors Højstrup (in 1387) and Vallø (in 1421).

(Source: Erik Ulsig, *Danske adelsgodser i middelalderen* (Copenhagen, 1968), appendix).

<i>Illustration 5</i>	184
-----------------------------	-----

Glimmingehus in Scania is the best preserved Danish noble castle from the Late Middle Ages. The 30 metre long building was built of granite stone by Jens Holgersen Ulfstand around 1500.

Rural Resources

<i>Illustration 6</i>	201
-----------------------------	-----

Fresco from the church of Reerslev, near Copenhagen, c. 1460–80. A man is harvesting, another is sowing.

(Photo: Department of Medieval and Renaissance Archaeology, University of Aarhus).

Towns and Markets

<i>Illustration 7</i>	229
-----------------------------	-----

The cathedral of Ribe in the south-western part of Jutland. Ribe was one of the most important Danish towns in the Middle Ages trading with the Netherlands and England. The cathedral was built of local granite and tufa and sandstone from the Rhine-area 1150–1250. In the background of the picture is the bell tower inspired by architecture in the Low Countries. The tower was erected by the citizens of the town 1283–1330 and clearly marks their growing influence.

(Photo: Department of Medieval and Renaissance Archaeology, University of Aarhus).

<i>Illustration 8</i>	231
-----------------------------	-----

The town seal of Viborg from the thirteenth century. The two “senators” on the seal indicate that a council of at least two persons was at the head of the town. In the thirteenth century Viborg—like Schleswig probably—had a council of four aldermen.

(Photo: Department of Medieval and Renaissance Archaeology, University of Aarhus).

<i>Map 5</i>	253
--------------------	-----

Map of the Danish medieval towns.

(Source: Anders Andrén, *Den urbana scenen. Städer och samhälle i det medeltida Danmark* (Malmö, 1985), appendix).

Crafts

<i>Illustration 9</i>	267
-----------------------------	-----

Relief from the church of Gjør, Jutland, showing Adam and Eve and a stone mason at work using his pick hammer, c. 1200.

(Photo: Department of Medieval and Renaissance Archaeology, University of Aarhus).

<i>Map 6</i>	293
--------------------	-----

The distribution of churches furnished with bells and baptismal fonts produced between 1475 and 1512 by the Flensburg bell founder Peter Hansen.

Rural Levies and Royal Finances

<i>Illustration 10</i>	305
------------------------------	-----

Sculpture made of limestone from Gotland. The sculpture was placed over a portal in Sønder Kirkeby Church on the island of Falster. It has

been dated 1150–1200. We see two men bringing gifts to the church. To the right a priest, Conrad, wears a wax candle and a chalice while to the left a local magnate, Toke, donates a coin.
(Photo: The National Museum of Denmark, Copenhagen).

Money

Illustration 11 325

Die for penning of King Erik Plovpenning (1241–50) found in Lund. The archbishop's rights in the coinage are shown by his sign, the St Laurentius' grid.

(Photo: Department of Medieval and Renaissance Archaeology, University of Aarhus).

Illustration 12 340

Penning minted in Ribe by King Valdemar II in the second half of the 1230s. It was coined in large quantities and, as something new, the use of it was restricted to one province. It circulated in Jutland and in Sealand as well. As a result of the abandonment of the frequent coin renewals (*renovatio monetæ*) such coins also circulated for a long period up to the mid-1250s (After Peter Hauberg, *Danmarks Myntvæsen og Mynter i Tidsrummet 1146–1241* (Copenhagen, 1906)).

Commodity Trade

Map 7 358

Important trading towns and market places in northern Europe

Illustration 13 363

Page from the Lübeck poundage book 1368 showing a list of the Lübeck skippers visiting Scania and providing details of the vessels, the owners and the quantities of herrings imported into Lübeck from

the Scania markets. The poundage was collected periodically as a means for among other things financing wars against Denmark. The Lübeck poundage books are important sources for the study of the Hanseatic trade on the Scania markets in the fourteenth century. (Foto: Archiv der Hansestadt, Lübeck).

INTRODUCTION

This book studies Danish resources in the Middle Ages. A comprehensive study of this nature has never been published before, nor does a major economic history of medieval Denmark exist. A very brief account of the period lasting from the twelfth century to the mid-sixteenth century was published in 1933. In its own time it was an excellent contribution, but it is now dated, of course. It is characteristic of this situation that the most recent economic history of Denmark begins in 1500.¹ Nonetheless, the quantity of research carried out on economic and social aspects of medieval history is huge. As in most European countries, economic and social history formed a cornerstone of Danish medieval studies in the twentieth century. This book puts data produced by more than a century of historical research into a new context and includes a multitude of information based on primary research into the medieval sources available. In accordance with long-standing historiographical traditions, a crucial focus of this study is the interaction between man and nature, including the impact of human society on the environment and vice versa.

The territory associated with a central power provides an appropriate delimitation for such a historical study. Central powers create a general backdrop for economic life quite distinct from the legal and institutional conditions prevailing within the domain of other central powers. The territory of a central power is the habitat of people expecting uniform conditions in life, i.e. those they are used to and aspire after. However, these conditions are not only set by the legal and institutional framework created by the central power, by politics, and by tradition: the basic conditions of life are set by nature, and the territories of central powers are geographical units of natural environments within more or less natural frontiers. Finally, central powers dispose of a substantial

¹ Erik Arup, "Die Wirtschaft des Mittelalters," in Axel Nielsen, *Dänische Wirtschaftsgeschichte* (Jena, 1933), pp. 1–79; Ole Feldbæk, *Danmarks Økonomiske Historie, 1500–1840* (Herning, 1993); Ole Hyltoft, *Danmarks Økonomisk Historie, 1840–1910* (Herning, 1999); Jan Petersen, *Danmarks Økonomiske Historie, 1910–1950* (forthcoming); Henrik Christoffersen, *Danmarks Økonomiske Historie, 1959–* (Herning, 1999).

proportion of the resources of the realm and consequently impact, both intentionally and unintentionally, upon their use and distribution.

There are three questions we must now ask. When did a Danish central power arise? What form did it take during the period in question? How do we delimit it geographically? It is possible, of course, to undertake historical studies of the development of resources within the geographical boundaries of modern Denmark and take them as far back in history as we desire. However, to use the delimitation of modern Denmark as a basis for medieval studies is to serve an ideological purpose rather than satisfy an analytical one. In that respect the delimitation of the modern national state is an anachronism. The existence of a central Danish power is not particularly old, and through time it has changed from a medieval kingdom to an absolutist state and then been transformed again into a modern democracy. These forms of central power have had a variable impact on the material and mental life of Danish society and their domain has also constantly changed. From a historical perspective, the geography of Denmark has been unsettled.

This book covers the period stretching from c. 1000 to 1550. The latter date forms an obvious termination for the study, as it can be argued that in the sixteenth century the central power completed its transformation from a medieval kingdom to a state. Furthermore, in 1536 the Reformation brought about a substantial redistribution of land and significant changes in administration. Land owned by the Church, i.e. about a third of the realm, was confiscated by the Crown and bishops were expelled from government. But when did the medieval Danish kingdom come into existence? And how did the domain of this kingdom develop, from its earliest beginnings to the sixteenth century? These questions underpin the geographical and time frames of this study.

The earliest known description of Denmark dates from the ninth century and records a journey from Norway to Hedeby in Schleswig made by a Norwegian, Ottar.² His description of Denmark evokes associations with a medieval Danish kingdom, but the Danish realm was not united at this point.³ Frankish chronicles from the ninth cen-

² The name 'Dane' perhaps derives from the Old English word *denu* (dale), i.e. 'lowlander': its earliest occurrence is in the writings of the Greek historian Procopius (*danoi*) and in Jordanes' sixth-century *Getica* (dani).

³ *The Old English Orosius*, ed. Janet Bately (London, 1980), p. 16.

ture provide the earliest known reference to a political history of the Danes. These chronicles give the impression of a political structure based on aggressive warlords leading aristocratic clans or interest groups.⁴ Warlords unsuccessful at home could always find consolation in expeditions abroad, as sailing had gained impetus in the centuries before the Norsemen became a serious threat to the coasts of western Europe.⁵ The underlying motive for their expeditions was the possibility of appropriation. Besides the capture of slaves, the most common ways of appropriating work and property were commerce, robbery, and the levying of tribute. This we know from foreign sources describing the ravages of the Vikings and from their testimony of the way in which the Normans collected tribute and “gifts”, sometimes in return for leaving.⁶ The potential for appropriation of this kind within the Danish homelands was limited. It is true that archaeological excavations testify to the existence of rich commercial centres in the Iron Age and Viking periods, but there are no indications of large-scale agricultural production before the twelfth century,⁷ nor were there any religious houses to plunder.

The gradual closing of wealthy western Europe to Viking raids and colonization, resulting from several factors including the strengthening of the central powers in England and Europe, was one of the external preconditions needed for the unification of a medieval Danish kingdom. When the geographical scope of their action contracted, warlords were obliged to turn to a more effective exploitation of the locality in which they lived. Increasingly, the control of Danish resources offered the road to power and riches. This control was not achieved by territorial dominance alone: expertise was also essential. To a large extent, know-how was provided by foreign churchmen and transplanted into Danish soil through their institutions, i.e. cathedrals and monasteries, although indigenous Danes also acquired expertise on travels around Europe. For

⁴ “*Annales Regni Francorum. Die Reichsannalen*”, *Ausgewählte Quellen zur deutschen Geschichte des Mittelalters*, vol. 5, ed. R. Rau (Darmstadt, 1968).

⁵ The earliest (and uncertain) indication of the use of sailing ships by Danes dates from 473, when Sidonius Apollinaris records the Saxon use of sails. The next, and more convincing, evidence is found in Gotlandic art from the seventh and eighth centuries. Perhaps the use of sails spread from Friesland eastwards and northwards. Jan Bill et al., *Dansk Søfarts Historie*, vol. 1 (Copenhagen, 1997), pp. 49–52.

⁶ The Normans, for example, were paid to leave Paris in 889. “*Annales Vedastini, Jahrbücher von St. Vaast*”, *Ausgewählte Quellen*, vol. 6, ed. R. Rau (Darmstadt 1966).

⁷ See chapter on “Manors”.

this reason, the second external precondition for the establishment of the Danish realm was the progress of the Church in the north from the late eleventh century onwards: it is no coincidence that we can only follow the history of landownership in Denmark from this point.⁸

It is difficult to form a clear picture of the geo-political situation of the country in the eleventh century. Adam of Bremen's primarily geographical account of the lands of the Danes is perhaps a fairly precise reflection of the situation. While Adam clearly believed that the Danes could be divided into several peoples, his description indicates that the unification of the realm had begun when he wrote his chronicle in the late eleventh century.⁹ Numismatic evidence suggests that at this point Cnut the Great already controlled the more important Danish towns.¹⁰ The strengthening of kingship in the eleventh century manifested itself in the reform of coinage in Svend Estridsen's reign.¹¹ Moreover, kingship gained ground in St Cnut's attempt at taxation, the so-called *nefjald*,¹² and by a tightening of the bonds between the Church and the Crown. Svend Estridsen was on good terms with the Church, and Adam of Bremen found him obedient to, indeed indulgent towards, the Archbishop of Hamburg-Bremen, Adalbert, and considered him a reliable source for his chronicle.¹³ According to this chronicle the Church was reorganized in Denmark around 1060.¹⁴ Svend Estridsen even appears to have worked towards the establishment of an archbishopric in Denmark, and his son Svend joined the first crusade (1096–1102).¹⁵ However, Svend Estridsen did not succeed entirely in his attempts to rule Denmark, nor did his descendants. The assassination of St Cnut in 1086 is a dramatic manifestation of the fact that at this point the

⁸ Ibid.

⁹ For example, he speaks of "Dani, guos Iuddas appellant". *AB*, *Descriptio Insularum Aquilonis*, p.13.

¹⁰ *Tusindtallets Danske Mønter*, ed. Jørgen Steen Jensen (Copenhagen, 1995), pp. 28–31, 34–37, 46–50.

¹¹ Ibid. pp. 19–20, 112.

¹² The word means "nose tax", i.e. poll tax. *SM*, 1, p. 24.

¹³ *AB*, book 1:48, 2:38, 3:23, 54.

¹⁴ Jutland had five sees: Schleswig, Ribe, Aarhus, Viborg, and Vendsyssel. Scania and Seeland had their own bishops, in Lund and Roskilde respectively, and on Funen was the see of Odense.

¹⁵ Two letters from Pope Gregory VII may indicate that, in the time of his immediate predecessor, Svend Estridsen had tried to free Denmark from the ecclesiastical province of Hamburg-Bremen. Alternatively the letters can be read as Gregory's attempt to establish a Danish archbishopric at a point when Svend Estridsen had lost interest in the project. *DD*, 1.2, nos. 11, 13.

Danish kings did not exercise sovereignty over the whole of Denmark. Kings were prominent rulers but not autonomous. The country was controlled by a complicated network of alliances, with magnates constantly at war with each other. The powerful players in this game were all more or less engaged in the exercise of royal or ecclesiastical power. The Crown and the Church were essential tools in this process and were exploited wholeheartedly by the magnates, but power was also exercised in other ways.¹⁶

The unification of the Danish realm was not linear. In the century and a half before 1157, when Valdemar I united the realm, the provinces sometimes appear to have been at least partially ruled by one king, but more typically were controlled by several. From the reign of Valdemar I, however, it can be argued that the Danish kingdom was permanently united. The 1330s saw the only exception to this rule, when Scania was subject to King Magnus of Sweden and the rest of the country was pawned to the Counts of Holstein. Nevertheless, Danish medieval kings often faced fierce opposition and sometimes rebellious subjects, hazarding the unity of the realm.¹⁷ The reigns of Cnut VI and Valdemar II (1182–1241) witnessed an interim climax, during which power was centralized in the hands of the sovereign.¹⁸

The earliest geo-political account of the Danish realm dates from the end of this great period of kingdom. It is to be found in the 15 inventories that form a heterogeneous collection of manuscripts dating from around 1230 and known collectively as *King Valdemar's Survey*.¹⁹ This provides a comprehensive view of the geographical area that comprised the medieval kingdom of Denmark in the thirteenth century. The image

¹⁶ Lars Hermansson, *Släkt, vänner och makt: en studie av elitens politiska kultur i 1100-talets Danmark* (Gothenburg, 2000).

¹⁷ For example in 1170, when Valdemar I crowned his son Cnut VI as joint ruler: Magnus, son of the previous king, Eric Lam, raised a rebellion which included members of the powerful Thrugot family from Jutland. After Cnut's accession in 1182 there was a serious rebellion in Scania. The period 1240 to 1330 was marked by dynastic struggles having their origin in the conflict between the descendants of two of Valdemar II's sons, Abel and Christoffer, and the revolt in Jutland against King Eric Menved in 1313. In the 1360s noblemen from Jutland rose against King Valdemar Atterdag, and in 1348–1441 there were peasant rebellions in Denmark.

¹⁸ Nils Hybel, *Danmark i Europa, 750–1300* (Copenhagen, 2003), pp. 195–208, 223–241.

¹⁹ A possible explanation for the non-homogenous character of the body of the inventories is that it was compiled of whatever data the royal bailiffs possessed and/or considered relevant to the chancellery. Mikael Venge, "Valdemar Sejrs fogeder", *Åise* 3 (1995), 100–110.



Ill. 1. Plate of lead found in King Valdemar I's (1157–1182) burial place in Ringsted

of the realm matches in outline Adam of Bremen's description of Denmark in the late eleventh century. The inventory covers the main provinces of Jutland, Funen, Sealand, Scania, and Halland. There are also records of Lolland, Falster, and Langeland, plus the smaller islands, together with inventories of overseas possessions in Estonia and Fehmarn.²⁰ Estonia and Fehmarn were the remnants of the Baltic dominions created between 1169 and 1219. Of these dominions, Estonia was held by Denmark for the longest period, but even there the extent of Danish control is disputable. Vassals in Estonia were mainly German, and Danish invaders met massive local resistance, protracting attempts to gain hegemony. It was above all the dominion of Reval²¹ that mattered: this crucial port on the sea route to Novgorod was sold by Valdemar IV when he disposed of Estonia to the Teutonic Knights in 1346.²²

The Principality of Blekinge does not appear in the inventories of King Valdemar, nor does Schleswig feature as a principality, although

²⁰ *KVJ*, 1.2.

²¹ Among other commodities, grain was exported from Reval. *DD*, 2.4, no. 260.

²² *DD*, 3.2, no. 273.

this southernmost part of Jutland is carefully described. In the period lasting from the mid-twelfth century until at least the 1280s, the Principality of Schleswig was considered an incontestable part of the kingdom. The year 1326 was a turning point in the history of the province, for it was then that the Duke of Schleswig, Valdemar Eriksen, was installed as King of Denmark by Gerhard, Count of Holstein. Soon after Gerhard was enfeoffed with Schleswig. A supplement to Valdemar Eriksen's coronation charter, the so-called *Constitutio Valdemariana*, stipulates that the Principality of Schleswig must never be joined with the kingdom of Denmark under the same ruler.²³ In the Late Middle Ages, influenced by yet closer links to Holstein, the principality gained autonomous status. Schleswig became a far more independent domain than any other Danish fief, but in a European perspective its status was not unique. In other kingdoms, such as Poland, Hungary, Germany, France, and England, fiefs endowed with special and extensive privileges were common. The English palatine states of Chester, Lancaster, and Durham, for example, were—like Schleswig—excluded from the normal royal administration.²⁴ For this reason, it would be unreasonable to exclude Schleswig from a study of Danish resources in the Middle Ages, whereas Sweden and Norway must be omitted because, even though they formed a joint Scandinavian kingdom with Denmark, the so-called Calmar Union, from the end of the fourteenth century, they all three retained their separate identity and political structures.

In terms of practical politics the background to this vaguely constituted Nordic Union was a pragmatic organization centred round Queen Margrethe I as a bulwark against pressure put on the northern kingdoms by the House of Mecklenburg, the Hanseatic towns, and the Teutonic Order. Indeed, the Union soon eroded.²⁵ When the treaty was renegotiated following the Swedish rebellion of 1434, the concept of shared monarchy as a necessary element in the union of the three

²³ It is uncertain whether *Constitutio Valdemariana* was an actual supplement to the coronation charter or whether it is a fake, since this resolution is to be found in a letter issued by Christian I in 1448. *DD*, 2.9, no. 273.

²⁴ William Christensen, *Dansk Statsforvaltning i det 15. århundrede* (Copenhagen, 1903); Horst Windmann, *Schleswig als Territorium. Grundzüge der Verfassungsentwicklung im Herzogtum Schleswig von den Anfängen bis zum Aussterben des Abelschen Hauses 1375* (Neumünster, 1954); Nils Hybel, "Palatine", in *Den Store Danske Encyklopædi*, vol. 14 (Copenhagen, 1999), p. 625.

²⁵ Aksel E. Christensen, *Kalmarunionen og nordisk politik 1319–1439* (Copenhagen, 1980).

realms was abandoned, and in 1448 Karl Knutsson was elected King of Sweden.²⁶ In 1457, when the Swedish Council broke with Knutsson, the three Nordic countries were again ruled by the same king, Christian I, but in reality his power in Sweden ended in 1464. His successors, Hans, Christian II, and Frederik I, ruled Norway and Denmark but not Sweden. During the 76 years beginning with Christian I's accession to the Danish throne in 1448 and ending with Frederik I's renunciation of his claim to Sweden, the three Scandinavian realms shared a monarch for only ten years.

This book therefore reflects the geographical delimitation of the medieval Danish kingdom, including, for the later part of the Middle Ages, the Duchy of Schleswig. The area covered therefore comprises: Jutland to the Eider, Scania, Halland, Blekinge, Sealand, Funen, Lolland, and Falster, as well as adjacent islets and the island of Bornholm. The period examined stretches from the eleventh century, when the first tentative beginnings of the Danish kingdom are seen, to the mid-sixteenth century, when the medieval kingdom had completed its transformation into a state.

In presenting an account of the fluctuation of resources from the eleventh to the mid-sixteenth centuries, this book places itself in a historiographical tradition. Around the time of the First World War the concept of varying levels of economic activity and commercialization became prominent in medieval research. The commercial history of the Middle Ages was depicted in terms of a blocking of the Mediterranean trade in the Early Middle Ages, flourishing commercial development in the High Middle Ages, and setbacks in the Late Middle Ages.²⁷ During the Great Depression of the 1930s this idea was refined in respect to the latter period. The works of several European historians revealed, more or less simultaneously, the concept of a late medieval crisis affecting all socio-economic areas of life.²⁸

From the 1940s the dominant trend in economic history ascribed the fluctuations of economic activity and commercialization primarily to structural changes, especially demographic ones. In 1947 a 'neo-Marxist'

²⁶ *DDR 1397–1513*, ed. Aage Andersen (Copenhagen, 1989), nos. 7, 8.

²⁷ Henri Pirenne, "Les périodes de l'histoire sociale du capitalisme", *Bulletins de la Classe des Lettres* (Bruxelles, 1914), 258–299.

²⁸ W. Abel, *Agrarkrisen und Agrarkonjunktur im Mitteleuropa vom 13. bis zum 19. Jahrhundert* (Berlin, 1935); M. M. Postan, "Revisions in Economic History—The Fifteenth Century", *The Economic History Review* 9 (1938–39), 160–167; Marc Bloch, *La Société Féodale* (Paris, 1949).



Map 1. Map of the medieval Kingdom of Denmark

theory appeared, while in the 1950s a 'neo-Malthusian' one was put forward.²⁹ At that time, these theories appeared as strongly marked, mutually incompatible bodies of thought, but from the 1960s there was a tendency for the 'neo-Malthusian' and 'neo-Marxist' positions to merge, and lead away from monocausal explanatory models.³⁰

As early as 1962 some of this learning was turned on its head. Based on indications of manufacturing, commercial, and urban developments, it was claimed that agricultural productivity increased after the great loss of population caused by the plague epidemics that marked the second half of the fourteenth century. Furthermore, it was demonstrated that there is no simple and unequivocal relationship between population development and economic and social change.³¹ Later, research proved that the empirical preconditions underpinning structuralist theories are dubious. There is no documentation for the existence of a general 'Malthusian' situation in northern Europe in the first half of the fourteenth century. Documentation supporting the 'neo-Marxist' claims of overexploitation and a consequent deterioration in the reproduction of the peasants towards 1300 is equally doubtful, nor is there much support for a general population decline before 1348.³²

A new approach, or perhaps rather the revival of a popular approach dating from the nineteenth century, has developed in the years that witnessed the collapse of the Iron Curtain and what seems to be the global victory of a market economy, or globalization, as it is widely known. In recent decades, commercialization has again become a key topic in the social and economic history of the Middle Ages.³³ This

²⁹ M. Dobb, *Studies in the Development of Capitalism* (London, 1947); M. M. Postan, "Moyen Age", *Rapports du IXe Congrès International Des Sciences Historiques* (Paris, 1950), pp. 225–241.

³⁰ Nils Hybel, *Crisis or Change, The Concept of Crisis in the Light of Agrarian Structural Reorganization in Late Medieval England* (Aarhus, 1989).

³¹ A. R. Bridbury, *Economic Growth—England in the Later Middle Ages* (London, 1962); See Bjørn Poulsen, "Tilbagegang og vækst i senmiddelalderens danske by", in *Middelalderbyen. Danske Bystudier*, 1, ed. Søren Bitsch Christensen (Århus, 2004), pp. 191–248.

³² Hybel, *Crisis or Change*; Nils Hybel, "Marginaljordstesens storhed og fald—om begrebet marginaljord i engelsk senmiddelalder", in *Marginaljorder i fortid, nutid og fremtid*, eds. Claus Bjørn et al. (Odense, 1992), pp. 69–83; Nils Hybel, "Teorier om de vesteuropæiske godssystemers afvikling i senmiddelalderen", in *Danmark i senmiddelalderen*, eds. Per Ingesman and Jens W. Jensen (Århus, 1994), pp. 47–86; Nils Hybel, "Godssystemerne i England, Danmark og på kontinentet ca. 1250–1350", *Historie* 1 (1994), 40–60.

³³ Peter Carelli, *En kapitalistisk anda. Kulturella förändringar i 1100-tallets Danmark* (Stockholm, 2001) is a recent Scandinavian example of this trend. Examples in Eng-

focus on commerce has generated a new monocausal ‘Schumpeterian’ theory, explaining the demographic development of the High Middle Ages by means of the fluctuating commercial opportunities available to medieval families.³⁴

There are two hypotheses underlying the present study. Firstly, that the development of resources in the Middle Ages cannot be described in terms of an overall increase from the eleventh to the fourteenth centuries followed by a general recession covering the rest of the period. In this book the terms High and Late Middle Ages therefore do not have this denotation but are used only as conventional designations of the historical periods 1000 to 1350 and 1350 to 1550 respectively. Secondly, we refute the point of view that monocausal theories can provide adequate explanations for changes in resources. On the contrary, the theoretical premise of this book is that we operate methodologically within the parameters of the resources themselves and study the interaction of these in the hope of uncovering and explaining fluctuations. The five main parameters of this study are: natural resources, human resources, institutional resources, the utilization of resources, and the exchange of resources. Each of these categories consists of specific resources which are analysed in separate chapters. Our study concludes with a synthesis of the development of resources as examined in this work.

Bjørn Poulsen has contributed the following chapters: Woods and Moors, Marine Resources, Knowledge and Literacy, Rural Resources, Towns and Markets, Crafts, Rural Levies and Royal Finances, and Money. Nils Hybel wrote the Introduction, the chapters entitled Arable Land, Climate, Population, Villages, Manors, and Commodity Trade, and the Synthesis: Growth and Recession. All parts of the book have been thoroughly discussed and revised and the authors are therefore jointly responsible for the entire work.

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³⁴ John Langdon and James Masschaele, “Commercial Activity and Population Growth in Medieval England”, *Past and Present* 190 (Oxford, 2006), 35–81.

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THE NATURAL WORLD

WOODS AND MOORS

The medieval landscape was tree-clad, with no clear-cut distinction between fields and woods. Fields were often dotted with solitary trees and fenced copses. Extensive forests, meadows, and moors could be found in the more remote areas of village land holdings. Woods could be subject to numerous forms of possession. They could be privately owned and enclosed, in which case they were called *enemærker*, while common land could include woods owned collectively by several villages or by the inhabitants of one particular village. Common woodland could also be divided into lots belonging to individual peasants. Outside the villages and their associated territory were areas of uncultivated natural resources termed *almindinger*. These areas were of interest to all parties: the king, the great landowners, and the villagers.¹

The original meaning of *alminding* is “that which all men have the right to use”. This definition was probably clear in the Viking Age: however, it is difficult to imagine that an abstract interest in the common good would secure access to the woods for everyone. Presumably the word *alminding* redefined as ‘a commonly pooled resource’ at a time when an expanding society was creating new concepts of property ownership. The need for this definition was stimulated by the fact that the late eleventh and early twelfth centuries saw Danish kings laying new claims to the suzerainty of the *almindinger*.² In Flanders and England similar royal claims date from around 1100 and it is possible that Denmark followed suit not long afterwards.³ We find the first evidence that royal claims were actually put into practice in the Roskilde Chronicle (c. 1138), which says of King Harald Hen (1074–80) that: “He ordered that the woods which the mighty had taken over should be common”.⁴

¹ Bo Fritzboøger, *A Windfall for the Magnates. The Development of Woodland Ownership in Denmark c. 1150–1830* (Viborg, 2004).

² Royalty throughout Europe asserted their royal prerogatives in the twelfth and thirteenth centuries. Ole Fenger, “Kongelev og krongods”, *HT* 100 (2000), 257–284.

³ Anette Hoff, *Lov og landskab. Landskabslovenes bidrag til forståelsen af landbrugs- og landskabsudviklingen i Danmark ca. 900–1250* (Århus, 1997), p. 257. Early signs of royal power include the imposition of a monopoly on the minting of Danish coinage in the 1060s and the introduction of *renovatio monetæ*. See chapter on “Money”.

⁴ *SM*, p. 23. “*Hic silvas, a solis potentibus obsessas, communes fieri iussit*”.

The source reveals one side of the coin. The king could try to protect the areas traditionally used by peasants against appropriation by private individuals. At the same time, the application of royal authority over such areas could also attach to the king the lucrative duties levied for the use and colonization of the woods by others, as well as allowing him to gift exclusive rights to certain woodland to his followers. With the strengthened royal power that emerged in the second half of the twelfth century, these new ways of interpreting the definition of *almin-ding* would become increasingly common.⁵ At this point there appears a clear movement towards the juridical distinction between the king's or the lord's land, owned by *dominium directum*, and land possessed by *dominium utile*, the right of tenants to use it.⁶

A list of royal lands, the so-called *kongelev* included in *King Valdemar's Survey*, provides an inventory of the most important forests in Denmark to be regarded as royal in the early thirteenth century, 'royal' because, among other reasons, the kings were increasingly claiming their right to *almindinger*.⁷ In Jutland a number of peripherally situated woods are mentioned: Gelting, in Angeln south-east Schleswig, Jernved Wood, stretching towards the Eider, and the Ulveskov (literally 'Wolf Wood') north of the Limfjord. On the island of Funen we hear of *Hægneth-scogh* near Middelfart, later called Hindsgavl, with the explicit meaning 'fenced wood', that is the king's separately enclosed wood, his *enemærke*. Sealand, according to the *kongelev*, was virtually covered by forests, including Ørved, in the north of the island and extending from Lake Esrum to Elsinore; the woods around Mårum and the adjacent Gribsskov,⁸ the latter still the second largest forest in Denmark; *Bouæskogh*, which seems to be identical with the present-day *Jægersborg Dyrehave* (north of Copenhagen); the woods on the peninsulas of Røsnæs and Hornsherred; and finally a forest called *Stensvedskov*, situated in the south of Sealand and encircling the town of Vordingborg. In the most

⁵ See the description in the History of Sven Aggesøn, c. 1190. *SM*, p. 120. "*Quo expleto, a rege Dani sylvarum et nemorum primo communia impetrarunt*".

⁶ Bo Fritzboeger, "Esrums klostres landskaber", in *Bogen om Esrum Kloster*, eds. Søren Frandsen, Jens Anker Jørgensen and Christian Gorm Tortzen (Holstebro, 1997), pp. 79–97.

⁷ The so-called *Kongelevliste* dates from before 1231, when most of *King Valdemar's Survey* was compiled. *KVJ*, p. 26.

⁸ Gribsskov in northern Sealand: although its name indicates that anybody is free to grip (*gripe*) it, this forest is nevertheless listed among the royal possessions (*kongelev*) in *King Valdemar's Survey*. Troels Fink, *Landsbyfællesskabet i Rinkenæs 1550–1769* (Åabenraa, 1989), pp. 17–21.

easterly parts of Denmark the forests were even more numerous and lay close together. In the province of Scania, widespread wooded areas were found near the boundary to the province of Blekinge: amongst these is *Syghthesore*, with its suffix *-ore* meaning ‘common’.⁹ *King Valdemar’s Survey* generally states quite clearly that the king has the right to all woods termed *almindinger* and to villages built within them. A locality with the name *Alminning* in this source may be identical with the large wood situated in the middle of the island of Bornholm, a wood which, even today, is called “Almindingen”. We also see the king laying claim to woods in the province of Blekinge, while in Halland the king asserted that all the woods north of the *Hallandsåsen* belonged to him, as well as “all the wood termed *almindig* and all the villages created from it and all adjacent woods”.

To some extent, this royal exercise of power meant that woodland was preserved as a common resource. In 1339, when Duke Valdemar claimed land in the south Schleswig area of Gelting, for instance, he was explicitly securing a number of remote lying farms and villages their long-established right to use the timber for building, as well as allowing them to collect kindling from the woods.¹⁰ On the other hand, the king himself was quite capable of destroying ancient common rights to woodland in other parts of the country. Private rights to woods were common in the late Viking Age: uncultivated land in Jutland was colonized by various enterprising individuals and *Farrisskoven*, a forest in mid-Jutland which stretches between the rivers *Kongedå*, *Gramå* and *Ribedå*, was cleared without the king intervening to assert his royal rights.¹¹ In Sealand, however, it appears that the king was far more engaged in directing the use to which the woods should be put.

In the large woods of Scania and Halland, long-established administrative units, such as the *herreder*, enjoyed communal rights to the *almindinger*.¹² The Law of Scania (c. 1220) also states that villages could own an *almindig* together with “wood or moor or other kinds of wilderness”.¹³ In this case only the peasants’ rights are specified, perhaps as an expression of the limited influence of the king on this and other

⁹ On *almindinger* in Scania, see Ingvar Andersson, *Skånes Historie: Senmedeltiden* (Stockholm, 1974), pp. 27–29.

¹⁰ *DD*, 1.12, no. 191.

¹¹ K. M. Hermansen, “Farrisskovens saga”, *Sønderjysk Månedsskrift* 22 (1946), 161–176.

¹² *DD*, 1.3, no. 109.

¹³ *Skånske Lov*. Chapter 71.

matters: indeed it could quite plausibly be seen as expressing a clearly anti-royal stance. The law was formulated at a time when royal claims to the *alminding* were becoming louder and were being put forward in *King Valdemar's Survey*, for instance. The *Knýtlinga Saga's* thirteenth-century account of King Cnut (1080–86) and his assertion of power over the people of Halland can be taken as a formulation of royal goals at the time the saga was written.¹⁴ The story goes that when Cnut was unable to obtain his demands from the Halland peasants, he retorted: “Then I will forbid you men of Halland to use, or let your animals graze in, the woods which I own and which are situated close to you—this applies to both pigs and cattle”. According to the saga, this threat had its effect and the peasants gave way to the king’s demands, “as there is royal forest throughout Halland and the men of Halland have a large quantity of pig mast there in beech or oak woods”. The construction of 126 royal villages in the woods of Halland at this point, i.e. around 1200, should probably be seen as a reflection of these extended royal claims.¹⁵

In the eastern part of Denmark, as in the rest of the country, the king played a double role. He could act as the defender of communal peasant rights: by 1200, peasants living in certain *herreder* (districts) in Scania had been granted access to *almindinger* lying at some distance from their villages.¹⁶ Similarly a royal decree dated 1282–83 guaranteed the peasants of the Scanian Bara *herred* their right to cut timber in the woods “which they call *alminding*”.¹⁷ But the king could also provide the shield under which the private appropriation of woodland was carried out. In Halland this process can be followed from a fairly early stage because on its foundation Esrum Abbey, in Sealand, was granted rights in woodland in Halland by the king.¹⁸ In the early 1170s the monks were given permission to fell timber in the royal forest near the village of Morup, a privilege shared by the local inhabitants. By 1182, however, this right had been changed by Cnut VI to a prerogative in favour of

¹⁴ *Knýtlinga Saga*, translated by Jens Peter Ægidius (Copenhagen, 1977), p. 47.

¹⁵ Aksel E. Christensen, “Danmarks Befolkning og Bebyggelse i Middelalderen”, in *Nordisk Kultur*, 2. *Befolkning under medeltiden*, ed. Adolf Schüch (Oslo, 1938), p. 13.

¹⁶ *DD*, 1.3, no. 109.

¹⁷ *DD*, 2.3, no. 21.

¹⁸ Poul Holm, “Kampen om det som ingen ejer: Om rettighederne til den øde jord indtil 1241 som baggrund for den tidlige middelalders bondeuro”, in *Til Kamp for friheden. Sociale oprør i nordisk middelalder*, eds. Anders Bøgh, Jørgen Würtz Sørensen and Lars Tvede-Jensen (Ålborg, 1988), pp. 90–109.

the religious house but excluding the villagers of Morup.¹⁹ A few years later, Sorø Abbey was active in a similar expropriation of common woodland at the expense of Toager (Tvåaker), a village neighbouring Morup. It is reasonable to assume that the serious rebellions of 1180–82 that took place in Scania were partly a protest by the local population at the taking over of *almindinger* by noblemen and by the church.

Three hundred years later, in 1481, acute problems again arose in respect to *almindinger* in Scania and Christian I felt it necessary to act in order to secure the peasants' access to them. First he ordered that the boundaries of the *almindinger* be marked, while it was prohibited to build dwellings with separately fenced fields within the woods themselves. Newly-built cottages were pulled down by order of the king. Christian also stipulated that peasants would not be liable for duties simply because they drove their animals along the woodland paths.²⁰ In the late medieval period we can see that woods other than *almindinger* were subject to a wide variety of rights. Many villages continued to benefit from their common woods, and indeed this custom remained until the nineteenth century. Woods owned privately by individual peasants also continued to be quite common and there was little restriction on the way they could be disposed of.²¹ A law promulgated in Lolland in 1446 (*Lollands vilkår*) distinguishes very clearly between the enclosed woods actually belonging to peasants as opposed to oak copses that happened to be located within their fields and forests described as reserves, presumably set aside for the exclusive use of the nobility.²²

Access to the woods by peasants, at least to woods not owned by them on an individual basis, was gradually defined and limited in new and restrictive ways. As early as the thirteenth century, noblemen living in eastern Denmark claimed the right to the "over wood" while the peasants had to be content with the "under wood". The "over wood" was defined as oak, beech, and ash, while the "under wood" consisted of smaller trees and scrub. This principle was put into practice, at least in eastern Denmark, and woodland resources were split between the orders of society.²³ In the fifteenth century provincial laws allowed

¹⁹ *DD*, 1.3, no. 103.

²⁰ *DDR*, 3, pp. 140–142.

²¹ By the mid-fifteenth century, for instance, Sissel Jebes, a widow from Schleswig, gave a plot of woodland by the name of *Oldemors Otting* to her local church. *Rep.*, 2nd ser., 2998.

²² *DDR*, 2, p. 97.

²³ Fritzboeger, "Esrum klostres landskaber", pp. 35–37.

landowners to forbid peasants from selling oak and beech at a profit.²⁴ Not unnaturally this resulted in unlawful retaliation and throughout the fifteenth and sixteenth centuries there are numerous accounts of peasants being fined for cutting timber in the royal forests.²⁵ These claims to the over wood by landowners also allowed them to demand duties for mast: payments were imposed on peasants for the privilege of masting their pigs in the woods.

Colonization in the High Middle Ages

In the early medieval period, most Danish woodland was comprised of beech. Some localities also supported oak, birch, hazel, and alder, while heather and oak scrub grew on man-made moorland. These wooded areas offered many resources: their trees provided firewood, timber, and fencing, as well as bark for tanning, while in many places leaves were used as cattle fodder. Wood was also the raw material needed for charcoal burning. The forest floor, with its grass and mast, provided food for cattle and pigs. The moors offered grazing for cattle and sheep, and their heather (*Calluna vulgaris*) could be cut for winter fodder and thatch. Peat dug from the moors was spread on the fields as manure.

The increased demand for these rich resources led to changes in the relationship between cultivated and uncultivated land. While woodland had over-run pasture in the Iron Age, it was now retreating in many places. Around the year 1200, Saxo would describe landscapes on Sealand which “in the old days were overgrown with wood but now are under the plough and have only a little shrubbery”.²⁶ The overall trend becomes clear if we consider the evidence drawn from pollen analysis: in the High Middle Ages two-thirds of the pollen came from trees and this held true even in the fertile areas of eastern Denmark.²⁷ Although this does not indicate precisely the ratio between forest and arable, it is significant that in 1770 only seven per cent of the country

²⁴ See below.

²⁵ See, for instance, *Næsbyhoved lens regnskaber 1502–1511*, eds. Haakon Bennike Madsen and Erland Porsmose (Copenhagen, 1991), pp. 222, 290; RA. Kongens arkiv. Slesvig og holstenske regnskaber før 1580. Sønderborg amts pengeregnskab 1541, p. 98.

²⁶ *Saxo*, 7,8,2.

²⁷ Fritzboeger, *A Windfall for the Magnates*, p. 18.

was covered by woodland, while by the year 1800 this had fallen to a meagre four per cent.²⁸

According to pollen analysis, the chronology of woodland clearance varied considerably from region to region. An analysis of a relatively peripheral area of Scania, Krageholm, shows both clearances and the establishment of a new pattern of settlement as early as the year 800.²⁹ From this time onwards, fields and meadows expanded, and beech and oak were left to stand virtually alone once alder, lime, ash, and hazel had been eaten by grazing cattle. A pollen analysis from Abkær, situated in central Jutland between two distinct geographical regions, shows that this area was covered by beech until the late twelfth century, when assarting began.³⁰ In general, it seems that in Denmark the rapid expansion of arable did not take place until about 1000.³¹ Even if a final assessment has yet to be agreed concerning the pace and expansion of settlement in the period 600–1000, written sources dating from 1100–1200 describe conflicts over *almindinger* and other woods that reflect the expansion of cultivated land on a scale hitherto unknown.

Sources describing clearances in the High Middle Ages will be examined more closely in the next chapter but here it is sufficient to note this expansion, which was largely taking place in the very woods to which the kings laid claim, i.e. the forests of south Schleswig, north and south Sealand, Scania, and Halland.³² These were the largest areas of forest still in existence in the Early Middle Ages. In general, the distribution between arable and woodland was already settled by the beginning of historical time and by the twelfth century it was only in the largest forests that there was room for clearances and the cultivation of more arable land. The potential for colonization must have been taken very seriously by the various kings who insisted that access to *almindinger* should be free: it was only by preserving this right for everyone that they could protect themselves from other demands by local people, whether wealthy nobles or humbler peasants, for exclusive rights or restricted access to

²⁸ Fritzboeger, *A Windfall for the Magnates*, pp. 19, 256.

²⁹ *The cultural landscape during 6000 years in southern Sweden—the Ystad Project*, eds. Björn E. Berglund, Mats Ridderspore, Lars Larsson, Nils Lewan and Steen Skansjö. *Ecological Bulletins*, no. 41 (Copenhagen, 1991), pp. 221ff.

³⁰ Bent Aaby, “Mennesket og naturen på Abkæregnen gennem 6000 år—resultater af et forskningsprojekt”, *Sønderjysk Månedsskrift* (1986), 284.

³¹ Bent Aaby, “Sjællands kulturlandskaber”, *Sjællands jernalder* (Arkæologiske Skrifter, 6), eds. Ulla Lund Hansen and S. Nielsen (Copenhagen, 1992), pp. 209–236.

³² See chapter on “Arable Land”.

the woods. Only then could they ensure that settlers from outside the local area could be given access to clear the land. Furthermore, as we have seen, the kings were eager to gain the right to cultivate new land themselves. As early as 1200 the king demanded that the peasants of Halland be allowed to “enjoy the woods to the benefit of them”; adding, however, that “the land should belong to us”.³³ A contemporary charter granted to Sorø Abbey made it clear that the bishop had taken over the royal prerogative in that the right to a wood was included in the endowment “on condition that, when the trees are felled, the right to the land should be the Bishop of Roskilde’s”.³⁴ The Law of Jutland (1241) states categorically that “in [the] *alminding* [i.e. the communal wood] the king owns the land and the peasants the trees”.³⁵

As settlements multiplied, supplies of timber began to dwindle. This point is illustrated by an analysis of the wood used for coffins at a churchyard in Lund during the period 1050–1150.³⁶ The analysis shows that during the period 1000–1050, just after the town was built, there was plenty of wood. There was an open common with solitary oak trees situated close by, while not far away were forests containing oak, ash, and lime, resources not hitherto exploited. However, it was not long before all the oak was cleared from areas close to the town. The common land had presumably already been cleared at this point and from the mid-eleventh century the woods lying at a distance were also converted to open commons and stripped of ash and lime. The oaks that could be cut there were young and still fairly small. Pine, brought in from distant parts, played an increasingly important role. Correspondingly, an analysis of timber excavated from the medieval levels at Svendborg shows that oak was in short supply by the thirteenth century.³⁷ Urban growth, along with the building of churches and castles, put further pressure on the availability of timber: in 1314, for

³³ *DD*, 1.3, no. 109.

³⁴ *DD*, 1.3, no. 246.

³⁵ Law of Jutland, chapter 53, first book.

³⁶ Thomas Seip Bartholin, “Dendrokronologiske og vedanatometiske undersøgelser af træfundene”, in *Uppgrävt förflutet för PK-banken i Lund* (Lund, 1976), pp. 145–169; Thomas Seip Bartholin, “Träet från Repslagaren”, in *S:t Stefan i Lund*, ed. Anders W. Mårtensson, (Lund, 1981), pp. 131–138.

³⁷ Henrik M. Jansen, Tove Hatting and Ingrid Sørensen, “Svendborg in the Middle Ages: an Interdisciplinary Investigation”, *Journal of Danish Archaeology* 6 (1987), 208–213.

instance, at least 3,000 metres of planks were used in the rebuilding of the royal castle of Stege on the island of Møn.³⁸

The import of foreign timber became crucial. Excavations at Svendborg of levels dating back to the High Middle Ages have uncovered spruce and pine that must have come from either Germany or Poland.³⁹ Furthermore, the quality of timber was deteriorating. Planks used in the building of ships became shorter and shorter from the twelfth to the fourteenth centuries, eventually becoming very short indeed.⁴⁰ Roof constructions put up in new churches were rarely made of solid oak: other timber, frequently poor quality, was substituted. This feature was especially common in the arable areas where grain was cultivated intensively, such as the fertile south-western parts of Scania. From the eleventh to the fifteenth centuries, churches in remote areas still dominated by woodland, such as the Linderödås in Scania, continued to build their roofs with sturdy, mature timber cut from substantial forests.⁴¹

The division of Scania into areas either rich or poor in woodland indicated another aspect of this ongoing deforestation. In itself, the demarcation was not new. Even in the Bronze Age, certain tracts of land, like the area between Roskilde, Køge, and Copenhagen, the so-called *Heden* or *Hedeboegnen*, were cleared of woodland. Now, however, this sharp division between wooded and non-wooded land became widespread throughout Denmark. From the High Middle Ages onwards, the large forests of northern Scania, Halland, and Blekinge were prized by people living well beyond the immediate locality for their excellent timber. In 1197, Esrum Abbey in Sealand was gratified to be granted land at Toager in Halland, because "here there [was] sufficient timber for their buildings": this can only be interpreted as an expression of interest from across the Sound.⁴² It is equally significant that in 1301 the same abbey was given the right to buy timber, firewood, and iron

³⁸ Thomas Finderup and Henriette Rensbo, "Træværket fra Stege Borg. Håndværk, teknologi og ressourcer i 1314", *Kuml, Årbog for Jysk Arkæologisk Selskab* (2005), p. 258.

³⁹ Jansen, "Svendborg in the Middle Ages", pp. 210–12.

⁴⁰ Ole Crumlin-Pedersen, "Wood technology and forest resources in the light of medieval ship finds", in *Medieval Ships and the Birth of Technological Societies*, ed. Christiane Villain-Gandossi., vol. 1, Northern Europe (Malta, 1989) pp. 25–42; Ole Crumlin-Pedersen, "Aspects of Wood Technology in Medieval Shipbuilding", in *Sailing into the Past. The International Ship Replica seminar. Roskilde 1984*, eds. Ole Crumlin-Pedersen and Max Vinner (Roskilde, 1986), pp. 138–149.

⁴¹ Bartholin, "Dendrokronologiske og vedanatomiske", pp. 145–169.

⁴² *DD*, 1.3, no. 223.

in the Scanian town of Helsingborg.⁴³ The most easterly region of Denmark had taken its place as the supplier of wood to the rest of the country.

Agriculture in Moorland Areas and the Dwindling of Woodland Resources

Heath-covered moors represent an alternative form of commons to woods. While scholars believed at one point that the Danish moors provided an ancient but natural resource, it has become clear that they are in fact man-made and that areas of central and western Jutland now dominated by moorland were originally covered with forest. It is true that in some regions the moors were already expanding during the Neolithic period, i.e. 2800–2400 B.C., and the early Bronze Age, i.e. 1800–1000 B.C., but in general it was only in historic times that they increased to any significant extent.

Using diagrams showing pollen found in certain lakes and bogs in western Jutland we can follow step-by-step the deforestation that occurred in the region and the accompanying expansion of moorland.⁴⁴ An area close to Lake Solsø near Videbæk was characterized by moorland and shrinking woodland as early as Neolithic times, but from the beginning of the Christian era until almost the present day this trend escalated. By 500 A.D. the area was already stripped of forest. Near Skånsø, an inlet on the Limfjord, heather (*calluna vulgaris*) spread markedly from around 600 B.C. In c. 700–800 A.D., the heather retreated while the woodland once more flourished but after about 800 A.D. this trend was reversed. From this point onwards the moors grew ever larger, reaching their maximum size around 1300. Near Lake Bos, north of Tim, the moors can be seen to have spread rapidly from c. 800 and throughout the Viking Age and the High Middle Ages before shrinking again in the fourteenth century. The area around Bos was finally cleared of forest in the Early Middle Ages, while data from

⁴³ DD, 2.5, no. 148.

⁴⁴ Aaby, "Mennesket og naturen på Abkæregnen", pp. 277–290; Bent Odgaard, "Vestdanske lyngheders oprindelse og fortidige udnyttelse", *Bebyggelsehistorisk Tidsskrift* 19 (1990), 117–129; Bent Odgaard, "The Holocene vegetation history of northern West Jutland, Denmark", *Opera Botanica* 123 (1994), pp. 1–171; Bent Odgaard, "Fra skov til hede. Vegetationens historie i Ulfborg herred", in *Mellem hav og hede. Landskab og bebyggelse i Ulfborg herred indtil 1700*, eds. Kristian Dalsgaard, Palle Eriksen, Jens Villiam Jensen and Jørgen Rydén Rømer (Århus, 2000), pp. 28–35.

Abkær Marsh, near the town of Vojens on the border between east and west Jutland, tell us that the region here was covered with forest from about 500 A.D. to the twelfth century, when the trees were felled.⁴⁵ In this case, however, the timbered area was not immediately replaced by moorland but by cultivated fields.

In origin the moors were thousands of years old but apparently their spread in most places dates from 800 and continued throughout the Middle Ages. Whereas by 800 A.D. the heath-clad proportion of land that lay within a 5 km radius of Lake Bos comprised less than 40 per cent of the total area, by the year 1000 this had risen to 60 per cent and by about 1200 close to 80 per cent.⁴⁶ A somewhat different chronology can be found at Abkær, where the moors first showed signs of significant enlargement around 1300.⁴⁷ The reason for this was doubtless a growth in agricultural production. Forests were fired in order to encourage more heather to grow: this could then be used for grazing and winter fodder. To maintain the vigorous growth of heather it was necessary to set fire to the moors every 20 to 30 years. This rejuvenated the heather and prevented other plants from taking hold but it also resulted in sand drifts, a process further accelerated by the widespread cutting of peat for use as a fertiliser. The soil quality in these open areas suffered from exposure to the elements. Large areas of barren soil were leached of all nutrients. Sparse sandy soil characterized the glacial parts of Jutland and northern Germany and stretched as far south as Belgium and these areas all suffered from the agrarian expansion witnessed in the Early Middle Ages.⁴⁸

Timber shortage in the Late Middle Ages and the problem of access to woods

There are some indications that wooded areas generally increased in the fourteenth century. Evidence, probably dating from 1375 to 1400, suggests that in certain inland parishes at Hornsherred, Sealand, a large cultivated area of c. 15 km², containing six villages and about 50 farms,

⁴⁵ Aaby, "Mennesket og naturen på Abkæregnen", pp. 277–290.

⁴⁶ Odgaard, "Fra skov til hede", p. 30.

⁴⁷ Aaby, "Mennesket og naturen på Abkæregnen", p. 286.

⁴⁸ Dirk Meier, "Sønderjylland fra natur- til kulturlandskab", in *Det Sønderjyske Landbrugs Historie. Sten- og bronzealder*, eds. Lennart S. Madsen and Orla Madsen (Haderslev, 2000), pp. 11–62.

was converted into woodland and given a new name: *Oldenområde*, i.e. 'masting area'.⁴⁹ In parts of Jutland there are similar signs of change in the distribution of moorland and forest.

The pollen analyses from Lake Bos, western Jutland, indicate that areas of heath diminished in the period 1200–1300 only to expand once more in the fifteenth century.⁵⁰ Around Abkær Marsh, in northern Schleswig, we are able to see a considerable decline in moorland from about 1350, a depletion only to be made good some 200 years later.⁵¹ At Abkær the forest gained a foothold at the expense of the moors. The sources show that it was not unusual for woodland to encroach on fields that were formerly cultivated. Around 1462 we hear that a tenant of the Bishop of Schleswig, a man living in Sønder Haksted, "uses much firewood from *Koxmarke* where there used to be a village". From the wood that now grew where houses and fields had once been, the bishop had the right to every seventh tree to be felled: this replaced the former land rent.⁵²

In more fertile regions of the realm the ratio of land given over to arable, pasture, and woodland changed little. On the island of Funen there is apparently only one location, Årup meadow in the parish of Brahetrolleborg, where it can be proved that an area used for pasture in the High Middle Ages was completely wooded by the late medieval period.⁵³ It is possible, however, that the desertion of certain small hamlets (*torper*) around 1400 sometimes resulted in fields reverting to forest once more.

There are many indications in the fifteenth century that both woodland and pasture had become scarce resources. Expanding heathland was creating shortages of wood in mid- and west Jutland: from the sources we can see that this problem was accelerated by widespread charcoal burning. Late medieval surveys of land from *herred* of Skads in west Jutland, where the town of Esbjerg is now situated, reveal that rents paid in firewood and charcoal were common in these areas of

⁴⁹ *Hornsherredundersøgelsen med indledende metodeafsnit*, ed. Svend Gissel, (Det nordiske Ødegårdsprojekt, Publikation 2) (Copenhagen, 1977); Erland Porsmose, "Middelalder c. 1000–1536", in *Det danske landbrugs historie, 1, Oldtid og Middelalder* ed. Claus Bjørn (Copenhagen, 1988), p. 335.

⁵⁰ *Mellem hede og hav*, p. 20.

⁵¹ Aaby, "Mennesket og naturen på Abkæregnen", pp. 281, 284.

⁵² *QS*, 6, p. 195.

⁵³ Erland Porsmose, *De fynske landsbyers historie—i dyrkningsfællesskabets tid* (Odense, 1987), p. 88.

poor-quality land.⁵⁴ Charcoal burning in the Late Middle Ages can also be traced in the moorland regions between the towns of Flensburg and Schleswig. Around 1420, two peasants from the villages of Smedeby (in the parish of Siversted) and Lille Solt, near Flensburg, were robbed, not only of their cattle, grain and hay, but also of their substantial supply of charcoal.⁵⁵ At the same time, the Bishop of Schleswig's tenants produced huge quantities of charcoal in the village of Treja, 28 *løster* (i.e. some 60,000 litres) of which were given to the bishop.⁵⁶ Furthermore, rent from the village of Esperstoft (in the parish of Eggebæk) was paid to the bishop in charcoal, despite the fact that the burning of charcoal was placing a heavy burden on local resources. In 1462, the Bishop of Schleswig's land survey records that the peasants of Hynning (in the parish of Eggebæk) and Sønder Haksted (in the parish of Jørl) "are not giving any charcoal." The survey explains that the peasants have been allowed to stop charcoal burning and, at the same time, have been forbidden to cut and sell timber for the construction of wagons. It is very likely that the bishop decided to relieve the pressure on them because the land was exhausted.

In most parts of fifteenth-century Denmark there were well-documented disputes over rights to woodlands and to the resources they provided. In western Schleswig, where timber was in short supply, conflicts arose in 1489–1500 between the Cistercian abbey at Løgum and the noble Gjordsen family, who owned the manor of Solvig. Both sides claimed the right to cut brushwood and burn charcoal in a small area of heathland called Moskær.⁵⁷ Only after tough negotiations was a compromise reached: this gave the lords of Solvig the annual right to load 42 wagons of brushwood from the moor and to graze their cattle there. At times disputes over woodland resulted in violence: it was a disagreement of this kind that arose in 1511 and caused a nobleman from Falster, Oluf Holgersen, accompanied by 12 men

⁵⁴ Bjørn Poulsen, "Middelalder", in *Før byen kom... Esbjergs historie, 1, Tiden indtil 1850*, ed. Verner Bruhn, Poul Holm, Peter S. Meyer, Jørgen Dieckmann Rasmussen, Ingrid Stouman (Esbjerg, 1996), p. 190.

⁵⁵ Jørgensen, "Klavs Lembeks Frafald i 1421", *DM*, 5th ser., 2, pp. 109–119, p. 115.

⁵⁶ *QS*, 6, p. 304.

⁵⁷ Hans Schultz Hansen, "Godsejeren på tinge. Solvig gods i senmiddelalderen", in *Kongemagt og samfund i Middelalderen. Festskrift til Erik Ulsig på 60-årsdagen*, eds. Poul Enemark, Per Ingeman and Jens Villiam Jensen (Århus, 1988), pp. 391–407; cf. *SRD*, vol. 8, pp. 35–37.

armed with crossbows and firing-pieces, to besiege a manor belonging to the Bishop of Funen.⁵⁸

Those who owned woodland fought hard to define and protect their rights against such incursions. In 1446, noble families on the island of Lolland joined forces to regulate access to local woods in *Lollands vilkår*.⁵⁹ Firstly, the thirteenth-century provincial laws governing the right to cut brushwood in private woods were reiterated. Secondly, in line with the growing rights of noble owners to the “over wood”, tenants were forbidden to sell oak and beech. Thirdly, in future noblemen would be permitted to keep goats even if they were not in possession of a large private wood, whereas peasants were denied this privilege. In 1473, noblemen living on the island of Funen passed a similar regional law: *Fyns vedtægt*.⁶⁰ It contained the same prohibitions against the sale of oak and beech and the excessive pasturing of horses. As in the case of Lolland, the keeping of goats was prohibited. In 1492 it was found necessary to pass the Funen law once again.⁶¹ In 1498, King Hans tried to prevent the overcutting of woodland in the district, or *len*, of Ålborg but as the culprit in this case seems also to have been the highest royal official in the locality, i.e. the *lensmand*, the king carefully added: “We do not know who has done it”.⁶²

In the eastern parts of Denmark similar disputes over woodland also necessitated changes in legislation. In Scania, King Hans moved to protect common access to *almindinger* in the 1480s, while in 1499 Archbishop Birger issued a local ordinance on the island of Bornholm to protect the *alminding* and other woodland there.⁶³ Apparently these woods had been virtually destroyed and the archbishop ordered that they must be fenced, while wood-cutting would be punished by the confiscation of the wrong-doer’s horse and wagon. As on the islands of Lolland and Funen, the keeping of goats within the enclosed wooded area was prohibited. Around the same date, peasants on the island of

⁵⁸ *Rep.*, 2nd ser., 11905; Vivian Etting, *Et ben i hver lejr. Om Falsters middelalder* (Nykøbing Falster, 1989), p. 67.

⁵⁹ *DDR*, 3, pp. 96–99.

⁶⁰ *DDR*, 3, pp. 137–139.

⁶¹ *DDR*, 3, pp. 164–166.

⁶² William Christensen, *Dansk Statsforvaltning i det 15. Århundrede* (Copenhagen, 1903), p. 232.

⁶³ *Aarsberetninger fra det kongelige Geheimearchiv*, vol. 5:2 (Copenhagen, 1871), pp. 82–86; Per Ingesman, *Ærkesædets godsadministration i senmiddelalderen* (Lund, 1986), pp. 99–100.

Bornholm agreed to a by-law which set out severe punishments for the illegal felling of timber in private fenced woods.⁶⁴

All types of woodland, whether belonging to peasants or their lords, were apparently suffering from over-use and everything possible was done to limit cutting. In 1526, for instance, Frederik I tried to protect the common woodland around villages in Jutland, as these areas were being ruthlessly exploited by the urban population.⁶⁵ In the 1540s, Løgum Abbey, in Schleswig, was forbidding people from other parishes to cut timber in local woods "after the damage that had been done".⁶⁶ In 1547, when Peter Hansen took over the tenancy of a farm in the Schleswig parish of Vedsted, the royal officer (*lensmand*) inserted a new clause in the lease prohibiting him from cutting oak or beech on his farmlands on pain of forfeiting his tenancy.⁶⁷ Permission to use any woodland was now carefully regulated. In 1498, the villagers of Majbølle on the island of Lolland were permitted to collect kindling and wood for fencing from the royal forest but they had to promise not to take supplies to urban markets or to sell them on the foreshore to passing merchants or farmers or to burn charcoal in the woods: by 1515 even this concession was withdrawn, as the woods were already over-exploited.⁶⁸ In 1511, when the town of Åkirkeby on the island of Bornholm burned down, it was only by the grace of the archbishop that the townspeople were allowed to buy ten wagon-loads of laths from a local source.⁶⁹ In a similar vein Christian III gave the rich Flensburg merchant Thomas Thor Schmeden permission to buy only six trees from the woods belonging to the Cistercian abbey at Ryde in 1548 on the grounds that he "was unwilling to see the woods of the monastery destroyed".⁷⁰

The many limitations on wood-cutting that we see in the Late Middle Ages were perhaps attributable to a number of different factors. It is true that there are more sources available for a study of the late medieval period than there are for earlier periods and this in itself might create the impression that regulations were becoming ever more prescriptive. However, better documentation is not the only reason for this trend.

⁶⁴ *Aarsberetninger fra det kongelige Geheimearchiv*, vol. 5:2, p. 86.

⁶⁵ *FFR*, p. 117.

⁶⁶ *SRD*, 8, p. 91.

⁶⁷ Emilie Andersen, *De Hansborgske Registranter*, 2 (Copenhagen, 1949), p. 361.

⁶⁸ *Rep.*, 2nd ser., 8644; Christensen, *Dansk Statsforvaltning*, p. 380.

⁶⁹ Ingesman, *Erkesædets godsadministration*, p. 100.

⁷⁰ *DF*, 2nd ser., 530.

One reason was the evident lack of respect on the part of the authorities for other peoples' claims and their insistence on exclusive rights to the woods. On the other hand, it is clear that the woods privately owned by peasants were suffering seriously from over-use. Resistance to the continued appropriation of woods by wealthy individuals might well have played a role, and also perhaps the strengthening of village communities in the late medieval period. In 1496, Hans Knudsen, a wealthy burgess of Husum, in the southern part of Schleswig, bought Immingsted Wood for 70 Lübeck marks.⁷¹ However, the purchase was disputed by the inhabitants of the parish and in 1520 Knudsen had to obtain a letter from Duke Frederik allowing him to arrest anybody found in his wood with horse or wagon and render him up to the king's officials.⁷² The most important reason for these restrictions on the use of wood, however, seems to stem quite simply from shortages of this valuable commodity and attempts by landowners in the Late Middle Ages to compensate for a drop in the incomes they derived from agriculture. Many of them apparently built their new manors in woodland areas and all noblemen now tried to stress their rights to the overwood. Powerful landowners were able to use the law to back up their claims and it is little wonder that these harsher regulations sometimes resulted in conflict.

Timber as an exchange commodity

Increased pressure on Danish woodland in the late medieval and early modern periods resulted in increased bartering and trading of timber. In many cases it was no longer possible to use nearby woods to satisfy a need for this commodity. In the Late Middle Ages, therefore, we see the land divided into specialized agrarian regions with limited access to woodland on the one hand and regions blessed with plentiful woodland on the other. This phenomenon, while known to have existed in the High Middle Ages, grew more pronounced towards the end of the medieval period.

Intensively cultivated regions experienced serious supply problems. In Lolland the sale of wood to towns and its export by ship had to be

⁷¹ *Rep.*, 2nd ser., 8204, 12128, 12689.

⁷² RA. Sønderjyske Fyrstearkiver. Hertug Frederik. G. 3.

banned, while in Funen it was similarly forbidden to export firewood by ship.⁷³ Against this background of severe shortage, the import of wood clearly became a necessity. In 1475, 25 peasants from the parishes of Skamby and Klinte on the island of Funen testified that they were sailing annually to Vejlefjord in Jutland to buy firewood and timber.⁷⁴ Christian II issued a national ordinance in 1522 which notes that people were sailing from Sealand to Jutland, Scania, and other places to buy wood.⁷⁵ In some regions the shortage became chronic, for instance in the treeless marshes of western Schleswig. This dearth formed the basis of a constant traffic in wood from east to west. Timber cut in the woods of East Schleswig was transported to Ribe and shipped southwards to the barren marshes. In 1480, when the export of timber from Ribe was banned, the islands of Sylt, Föhr, and Eiderstedt were exempted from the prohibition. In the southern part of Schleswig, transit traffic was recorded as it passed by the castle of Schwabstedt, which belonged to the Bishop of Schleswig. The castle accounts for the year 1504 show that boats were regularly sent up the small River Trene to collect wood from the inland village of Treja. The customs accounts of the castle for the same year record large shipments of wood from inland villages to the marsh regions or to Heligoland. The extensive forests of southern Schleswig were evidently functioning as suppliers to the marshes.⁷⁶

Another consequence of the growing shortage of timber in the more cultivated agrarian regions was that from the late fifteenth century onwards this valuable commodity was shipped from Halland in eastern Denmark and from the southern part of Norway in exchange for other goods.⁷⁷ The two regions became the principal suppliers of wood to the whole of Denmark. A number of late medieval statutes indicate that the shipping of timber was set up by peasants in Halland and at that time Norwegian ships carrying timber paid regular visits to Issefjorden, an inlet in the north of Sealand.⁷⁸ In 1489 two Norwegian ships anchored in the Issefjord to sell timber to the local peasants and were attacked

⁷³ *DDR*, 3, pp. 137–139.

⁷⁴ Porsmose, *De fynske landsbyers historie*, p. 90.

⁷⁵ *DDR*, 3, p. 184.

⁷⁶ Landesarchiv Schleswig-Holstein. Abt. 162. Schwabstedt Amtsrechnungen 1504.

⁷⁷ Poul Enemark, "Skudehandel", in *KLNM*, vol. 16, pp. 1–3; Bjarne Stoklund, "Tømmerskuderne fra Læsø. Et kapitel af skudehandelens historie i Danmark", *Årbog 1972. Udgivet af Selskabet Handels- og Søfartsmuseets Venner*, 153–198; Poul Holm, *Kystfolk. Kontakter og sammenhænge over Kattegat og Skagerak ca. 1550–1914* (Esbjerg, 1991).

⁷⁸ *Rep.*, 2nd ser., 12549; *DGK*, 4, pp. 291–95.

by angry citizens of Roskilde. The townsmen considered their trading rights violated, and rampaged around the Norwegian ship, drinking all the beer on board and making off with the sail.

By the early sixteenth century, Funen was also part of an exchange network with Norway. In 1509, for instance, Queen Christine bought 100 lengths of timber from a Norwegian ship moored in Odense, while in 1519 the customs rolls of this town show that 17 ships from Halland and Norway docked there, carrying cargoes of limestone and timber and taking back grain.⁷⁹ In 1539 the peasants of Halland were granted formal permission to export timber and stone and to import whatever they needed for their own use.⁸⁰ Nevertheless, a real breakthrough in the Kattegat-Skagerrak trade does not seem to have taken place until the mid-sixteenth century.⁸¹ Other parts of Denmark were also involved in transactions with Norway and Halland. In 1562, for the first time, we hear of a “harbour” on the River Næsbyå in west Sealand, where Norwegians sold timber to local peasants.⁸² In 1568 and 1571 we are told that people of Halland and Norway were sailing into the Limfjord to the island of Mors and selling timber against payment in grain.⁸³ In the second part of the sixteenth century a lively trade flourished between the north-west coast of Jutland and Norway.⁸⁴

Fundamental to this Kattegat traffic was the grain exported north to Norway and Halland in return for wood.⁸⁵ This exchange is mentioned in many statutes from the mid-sixteenth century onwards.⁸⁶ The sources also make it clear that the peasants of Halland, along with those in the Norwegian province of Bohuslen and in the south of Norway,

⁷⁹ *DCH*, p. 325; *RA*, Reg 108 A, Gl. Pk. 24, no. 1.

⁸⁰ *DM*, 3. ser., 6, p. 279. Permission was granted in 1539 for the peasants of Halland to transport timber in their own ships: this was confirmed in 1568 but at the same time the size of their ships was restricted. *KB* 1566–70, pp. 192, 311, 490–491; *KB* 1571–75, p. 416.

⁸¹ Bjørn Poulsen, “Fra middelalder til renæssance: Vækst og strukturændringer i søfarten på Ålborg 1518–1583”, in *Søfart. Politik. Identitet. Tilegnet Ole Feldbæk*, eds. Hans Jeppesen, Anders Monrad Møller, Henrik S. Nissen and Niels Thomsen (Copenhagen, 1996), pp. 43–64; Poul Holm, *Kystfolk. Kontakter og sammenhænge over Kattegat og Skagerrak ca. 1550–1914* (Esbjerg, 1991), p. 74.

⁸² *KB*, 1561–65, p. 388.

⁸³ *KB*, 1566–70, pp. 357–388; *KB*, 1571–75, pp. 31–2.

⁸⁴ Johan Hvidtfeldt, “Skudehandelen i det 17. aarhundrede”, *Jyske Samlinger*, series 5, 2 (1935–36), 31.

⁸⁵ For an analysis of the Kattegat-Skagerrak “system”, see Holm, *Kystfolk*.

⁸⁶ See, for instance, *KB*, 1561–65, p. 388; *KB*, 1566–70, pp. 311 (Halland), 357–388; *KB*, 1571–75, pp. 31–2 (Norway).

carried herring, salt, and German beer on their homeward voyage.⁸⁷ The buyers in the south were short of timber, while there was a grain deficit in the north. Ships from Schleswig were now sailing to Norway to buy the timber so essential for the building of houses and dikes. In 1562 the inhabitants of the village of Møgeltonder were permitted to sail to Norway to buy oak for the construction of dikes and sluices and for use in their homes.⁸⁸ Water powered saws were introduced in Norway in the 1520s, greatly facilitating the cutting of timber, while trade boomed when demand from Holland began in the mid-sixteenth century. For a period many peasants in the southern part of Norway acted as small-scale capitalists, specializing in forestry and producing timber for an international market.⁸⁹ At the same time, there is little doubt that peasants in certain parts of Denmark, including north Jutland, were gearing their grain production towards the regions that supplied wood.⁹⁰

The development of trade in the Kattegat region was not unique. From around 1500 the eastern province of Blekinge also exported timber and imported grain. In the first decade of the sixteenth century we see that towns on the island of Bornholm were selling grain in Blekinge and loading timber for the return voyage and at that time peasant shipping from the region was also active.⁹¹ In 1514, Christian II prohibited the peasants of Blekinge from sailing abroad but at the same time banned foreign merchants from visiting the small landing places situated outside towns in the province. If, however, these same merchants could not take on a “full cargo” in the towns they were allowed to put in at a limited and specified number of these small anchorages to buy wood on payment of cash.⁹² This statute was passed in 1521 but repealed the following year.⁹³ In 1538, a number of towns in Blekinge attempted to prohibit peasants from taking to sea. The peasants responded that they could only grow small quantities of grain and they would suffer

⁸⁷ *KB*, 1566–70, pp. 296, 490–91.

⁸⁸ *KB*, 1561–65, p. 168.

⁸⁹ Stein Tveite, *Norsk skogbrukshistorie*, 2 (Oslo, 1971); John P. Maarbjerg, *Scandinavia in the European World-Economy, ca. 1570–1625: Some Local Evidence of Economic Integration* (New York, 1995), pp. 248–9.

⁹⁰ Poul Holm, “Havskab og kystkulturer”, in *Den jyske historiker*, 68 (Regionen i historien), (Århus 1994), pp. 37–50, 45.

⁹¹ *DGK*, 4, pp. 243–4.

⁹² *DGK*, 4, pp. 330–32.

⁹³ *DGK*, 4, pp. 365 ff.

if they were not allowed to use the resources of “the woods and the beach”. Nevertheless, the king ruled that no peasant of Blekinge might ship goods out of the country.⁹⁴ The same issues arose in 1550, when the citizens of Ronneby and Lykä, along with the peasants of Blekinge, complained about a royal export ban on timber. The king then lifted his ban but at the same time reiterated the point that peasants were only allowed to engage in domestic trade and shipping.⁹⁵

There are many statutes from Blekinge that survive and it is clear that originally its main export was timber; however, during the late sixteenth century only the export of firewood (alder and birch) was allowed. Import goods were primarily grain, flour, malt, hops, steel, salt, and beer.⁹⁶ There is no doubt that the export of wood had an impact on production in Blekinge. Only specialized forestry could have allowed the demographic growth that marked this province in the sixteenth century, although fishing also provided an income for many. As the peasants themselves stressed whenever they addressed the central authorities, they had only very limited grain production and therefore had to buy their supplies from outside.

As well as an increase in the exchange of wood for other commodities both within Denmark and between Denmark and Norway, the import of foreign wood was growing. Denmark could no longer produce timber suitable for ship-building, and sailing vessels were often purchased abroad. Danzig (Gdansk) operated an excellent export trade and in the 1430s the town council of Aalborg bought a large ship there. Danzig merchants had access to the huge forests of eastern Europe and had no need to fear that supplies of timber would run out. In company with the inhabitants of Königsberg (now Kaliningrad), for example, they could supply the tall masts necessary for the large vessels built in the sixteenth century. In 1540, the toll accounts for the Sound tell us that a Danish skipper earned six marks for towing “the large mast”, brought to Elsinore by a Danzig ship, on to the king’s shipyard in Copenhagen.⁹⁷

⁹⁴ *DKR*, p. 73.

⁹⁵ *DKR*, p. 453.

⁹⁶ *DKR*, p. 453; *KB*, 1571–75, pp. 673–4; *KB*, 1588–92, p. 719; *KB*, 1616–1620, p. 188; V. A. Secher, *Forordninger, Recesser og andre kongelige Breve 1558–1660*, 6 (Copenhagen, 1918), p. 339, no. 289.

⁹⁷ *RA. Øresundstoldregnskab 1540*, p. 92.

There are many signs that Denmark experienced a growing timber shortage in the fifteenth and sixteenth centuries. It is not easy to establish a precise chronology for this and in any case this would vary from region to region. From the thirteenth century onwards, the general European shift from building houses consisting of posts set in the ground in postholes to constructing them on stone foundations should probably be seen as a sign that access to timber was becoming more restricted.⁹⁸ This new style of building certainly saved timber, a point made clear in a local fifteenth century law issued by landowners on the island of Funen which made it illegal for the local peasants to build houses that “[were] not set on stones”.⁹⁹ The landowners knew very well the connection between construction technology and the use of wood.

In general the many regulations governing the felling of trees and the trade in timber must indicate a considerable pressure on woodland resources. This could mean that when the population declined in the Late Middle Ages, woods were not allowed to regain their original size or alternatively that wealthy landowners were putting greater pressure than ever before on the resources provided by forests. Probably both explanations are true. If there is a direct connection between demography and the size of woodland areas, it seems rather that the clearing of woodland provoked by demographic growth was not reversed when the population fell. A further explanation could perhaps be that the number of peasant farms in Denmark, or at least the area under cultivation, was relatively constant from around 1200 to 1600 except in times of great population crisis, for example the period c. 1380–1420, when so many settlements were abandoned.¹⁰⁰ There were always people to sustain agrarian production and the dwindling areas of woodland never had a chance to regain their original distribution.

⁹⁸ *Tårnby. Gård og landsby gennem 1000 år*, ed. Mette Svart Kristiansen (Højbjerg, 2005), p. 17.

⁹⁹ *DDR*, 2, pp. 137–39.

¹⁰⁰ Cf. Erik Ulsig and Axel Kjær Sørensen, “Studier i Kong Valdemars Jordebog. Plovtalsliste og Møntskat”, *HT*, series 14, 2 (1981–82), 1–26.

ARABLE LAND

Sometime in the second half of the eleventh century Adam of Bremen described Denmark as follows:

[The] soil of Jutland is sterile; except for those places close to a river, nearly everything looks like a desert. It is a salt land and a vast wilderness. Furthermore, if Germany as a whole is frightful for its densely wooded highlands, Jutland itself is more frightful in other respects. The land is avoided because of the scarcity of crops, and the sea because it is infested by pirates. Hardly a cultivated spot is to be found anywhere, scarcely a place fit for human habitation. Sealand by contrast is celebrated as much for the bravery of its men as for the abundance of its crops... Scania is the province of Denmark fairest to look upon—whence also its name—well provided with men, opulent of crops, rich of merchandise, and now full of churches.¹

Adam of Bremen had not travelled the country, but his account is not completely wrong, albeit somewhat exaggerated. He had his reasons for giving prominence to the delights of Sealand and Scania, acknowledging that his principal source of information about Denmark was King Svend Estridsen, whose outlook was east Danish. Nevertheless, in Adam's day there was a marked difference between the vegetation in eastern and western Denmark, a distinction that had existed for millennia. This difference evolved when agriculture developed in northern Europe around 4,000 B.C. and it survived to the nineteenth century: the reason for this variation can be found in the types of soil predominating in east and west Denmark.

The Cultural Landscape

Denmark can be divided into zones of sandy and clay soil. The geological distinction between these types of soil is five per cent clay in the latter. The geographical boundary overlaps approximately the ice front from the last Ice Age and extends down the central part of Jutland.

¹ *AB*, book 4:1, 5, 6, 7, pp. 227–228, 233–235.

West of this line are the sandy soils and east of it the clay soils. On the sandy soil of western and central Jutland it is difficult to develop agriculture. The soil is easily desiccated by any reduction in rainfall. Too much rain washes out salts and plant food and produces sour humus and podzol. On these soils agriculture dwindled in the early part of the Iron Age, whereas animal husbandry expanded, creating a landscape of open commons and heaths. It was this old cultural landscape that Adam of Bremen described as an enormous desert. In contrast, on the heavy clay soil east of the ice front it was possible to develop agriculture effectively, although clay soil in itself is not particularly fertile, especially when combined with plenteous Danish rainfall. Heavy rain makes the soil acid and poor, but these problems can be solved by ploughing, draining, marling, and manuring. All these techniques are pre-medieval.² With a lot of work, heavy clay soils allow a rich agriculture to be developed. On this basis a landscape of intensively tilled fields characterized eastern Denmark from the Bronze Age onwards, and it was this feature that inspired Adam of Bremen's comment on the bounteousness of crops in the region.

If we move 700 years on from Adam of Bremen's days, this image of the Danish cultural landscape can be refined. The first modern mapping of the country was made by the Royal Danish Society of Sciences and Letters between 1757 and 1820. Its aim was to survey the land and to map out the resources of the country. The maps produced by the society confirm broadly the account given by Adam of Bremen. More than two thirds of eastern Denmark was given over to arable farming, with less than a third of western Jutland used in such a way. However, even in eastern Denmark large and more or less uncultivated areas could still be found, particularly on hilly or low-lying ground and along the coasts. Around 1800 the country comprised four types of land: arable, heath, woodland, and marshland.³ Europe in the Middle Ages could be partitioned in a similar way.

Eastern Jutland, the Danish islands, and Scania form part of an arable zone covering most of the European continent and surrounding islands north of the Alps and the Pyrenees. The Swedish forests north of Scania, the ice front down through Jutland, the North Sea, and the

² See chapter on "Rural Resources".

³ Per Grau Møller et al., *Kulturhistorisk inddeling af landskabet* (Copenhagen, 1997), pp. 20 ff.

hills of the English Midlands form its boundaries to the north and west. Within this zone, however, there are many places less suited to arable farming. Furthermore, in the Middle Ages there were specific crops, such as grapes and various types of fruit, that were more profitable than grain in certain areas. In other districts it simply did not pay to grow grain, either because its cultivation presented technical difficulties or because the land was needed for other purposes. Urbanization and commercialization played an important role in this process. The European arable zone was not comprised of one huge undulating field of grain.

Today, after centuries of intense draining, it can be difficult to imagine the medieval landscape. In the High Middle Ages, and indeed well into the Early Modern Period, large areas were covered by forests, marshes, lakes, moors, and sand dunes. The agrarian economy included not only the crops grown on cultivated land but also the fruits of the wasteland. Meadows were highly valued in the arable zone, because they produced hay and pasture for animals. The right to meadows was almost as important as the right to arable land, and it was a prerogative frequently contested: the same can be said of fishing rights to lakes and streams, the right to feed mast to pigs, and to gather firewood, berries, and fruit in the woods, not to speak of the right to hunt.⁴ Our knowledge of the medieval diet confirms the importance of the wasteland in agricultural economy;⁵ nevertheless, grain remained the most vital element in the nutrition of medieval man. It has been estimated that some 60 to 75 per cent of the calories consumed by adults was met by grain in the form of beer, bread, and porridge. In addition, grain, and oats in particular, constituted an important animal feed.⁶

In other words the land was used in accordance with its various natural geographical qualities. This usage is ancient and in Denmark is more than 3,000 years old. From the introduction of arable farming around 4000 B.C. Denmark gradually changed from being an almost completely wooded country to being virtually deforested, with

⁴ See chapters on "Woods and Moors" and "Rural Resources".

⁵ See chapter on "Population".

⁶ Bruce M. S. Campbell et al., *A Medieval Capital and its Grain Supply: Agrarian Production and Distribution in the London Region c. 1300* (London, 1993), p. 33. See also Christopher Dyer, *Standards of Living in the Later Middle Ages: Social Change in England c. 1200–1520* (Cambridge, 1989), pp. 55–58, 151–60; Bjørn Poulsen, "Marked og agrar regionalisering i Danmark", 1100–1660, in *Historisk dybde i bygdebegrebet*, eds. Per Grau Møller and Mette Svart Kristiansen (Auning, 2006), pp. 105–118.

a landscape that by c. 1800 A.D. comprised heath, arable, commons, and copses. The division of the land into three types of landscape, i.e. arable, heath, and woodland, began in the Bronze Age, from 1000 to 500 B.C. This does not mean, of course, that arable land then covered the same area as it would later do around 1800, rather that generally speaking the geographical distribution of these types of land remained more or less constant in the 3,000 year interval. This lends substance to the assertion that arable farming was widespread throughout the entire period from c. 1000 B.C. to c. 1800 A.D. and that the woods primarily covered hilly ground where arable farming was difficult anyway.⁷

Expansion

New farmland was successively brought under the plough or into use as pasture from about 4000 B.C., but this was not a continuous process, and there were presumably local variations. The most important source of new arable land was the natural woodland. In some places it appears that deforestation first began in earnest during the Middle Ages. This was probably what the chronicler Saxo Grammaticus discovered when he wrote around 1200 that the road between Kalundborg and Sigersted, Sealand, which in former times was surrounded by woodland, was now partly brought under the plough and sparsely covered with thicket.⁸ If Saxo can be trusted, and there are no apparent reasons why he should not be, there were also locations where the fields of former times had become wooded. Saxo gives the following archaeological account:

Due to decreasing cultivation Denmark appeared still more a wooded country, having lost completely the original beautiful turf and being covered by dense and nasty forests. In the country, traces of this can still be found. Localities which before were fertile plough land, can now be seen filled with trees, and areas where before the farmer dug deep in the ground and spread large turfs are now covered with wood and show only traces of former cultivation. Had it not been uncultivated, waste, and wooded for a long time, the ground could by no means have been divided between furrows, drawn by the plough, and the firm roots of the trees. The mounds, thrown up by people in the old days to bury the dead, are

⁷ Bent Vad Odgaard and Peter Rasmussen, "Origin and temporal development of macro-scale vegetation patterns in the cultural landscape of Denmark", *Journal of Ecology* 88 (2000), 733–748.

⁸ Saxo, book 7, chap. 8.2 (Copenhagen, 2005).

also now covered with forest. Scattered in the woods numerous piles of stones can be seen, which were once spread all over the fields, but the peasants carefully collected them into piles, in order that they should not prevent them from ploughing, because they preferred that a little piece of land was waste, rather than the entire field was hard to work. From the work done by the peasant in those days to make cultivation easier it can be concluded that the ancient population were more numerous than in later times, when people were content with small fields and cultivated within more narrow boundaries than in former times. The present generation therefore wonders why, instead of soil where crops were grown in the old days, they can now only produce pannage, and instead of the ploughshare and fields of grain, a land where trees grow has arisen.⁹

Saxo's archaeological considerations are not without a grasp of reality. Numerous traces of field systems from the Iron Age have been found.¹⁰ Pollen analysis shows that at Holmegaard, in southern Sealand, where open grassland and scattered cultivation of wheat can be traced from 500–400 B.C., beech forests made progress about a thousand years later. The cultivation of rye does not appear until the twelfth and thirteenth centuries, simultaneously with the growth of the commons and the retreat of the beech forest. At Næsbyholm, also in southern Sealand, a comparable chronological pattern has been found, except that here it was cattle farming, in particular, that developed in the Middle Ages. These two localities were both marginal in respect to the cultivation of grain.¹¹ In contrast, the district around Lake Dallund on the north Funen plain is typical arable land. If we compare the results of pollen analysis with diatom analysis, we see a diversified image of the historic development of arable in this district. In the first century A.D. the land was very open. Large pastures covered the areas around the lake, but barley and rye pollens have also been found. Between the third and seventh centuries A.D. the production of grain increased and the woods expanded. This expansion of woodland continued in the Viking period, while the cultivation of grain declined. The forest area peaked during the last two decades of the tenth century. There followed a period of

⁹ Saxo, book 8, chap. 13.3.

¹⁰ Viggo Nielsen, "Prehistoric Field Boundaries in Eastern Denmark", *Journal of Danish Archaeology* 3 (Odense, 1984), 135–163; Viggo Nielsen, *Jernalderens plovning. Store Vildmose* (Århus, 1993).

¹¹ S. T. Andersen et al., "Environment and Man. Current Studies in Vegetational History at the Geological Survey of Denmark", *Journal of Danish Archaeology* 2 (1983), 184–196; S. T. Andersen, "Natural and Cultural Landscapes Since the Ice Ages", *Journal of Danish Archaeology* 8 (1989), 188–199.

intense clearance during the eleventh and twelfth centuries. A great deal of woodland was turned into good arable.¹²

A pollen diagram from Vorbasse in the southern part of mid-Jutland shows a completely different development: here the vegetation seems to have developed consistently from about 300 to 1100 A.D. The diagram indicates constantly increasing arable and commons, while towards the eleventh century the commons seem to have expanded even at the expense of grain cultivation. The growing importance of animal husbandry is suggested by a simultaneous spreading of heathland too.¹³ The development around Vorbasse was different, of course, from the one that evolved in arable eastern Denmark. Apparently clearances in the Danish sector of the European arable zone did not proceed continuously and unbroken across the region or across the millenniums. In the Middle Ages it was possible to colonize virgin soil as well as to reclaim lost fields and commons.

Colonization took place throughout the European arable zone in the twelfth and thirteenth centuries. Colonists not only wrested vast acreages from fen and forest: as observed by Saxo some of their time was spent recovering old arable that had reverted to wasteland. Furthermore, some colonization was internal while some was external. Internal colonization manifested itself as a growth of the land around existing villages and manors. This part of the process is reflected in the fact that some villages had quite extensive fields: in the seventeenth century these areas are recorded as covering up to 3,500 acres, with many villages having between 680 and 1,360 acres.¹⁴ External colonization signifies the planting of new villages between existing ones and was widespread in western Europe, Slavic eastern Europe, and the Celtic far west.

Throughout the High Middle Ages numerous migrants from the west, particularly from the Netherlands and Saxony, settled east of the Elbe, while Anglo-Normans colonized Scotland, Wales, and Ireland. In eastern Europe active entrepreneurs advertised favourable rents and tenancies to attract westerners to the 'new' world. Some Slavonic princes took part in these activities. For example, Duke Kasimir I of Pomerania-Demmin gave the village of Dargun to the Cistercians to

¹² *Danmarks og Grønlands Geologiske Undersøgelser, Årsberetning 1998*, pp. 59–71.

¹³ D. Brorson Christensen, "Landskabet ved Vorbasse", in *Det Skabende Menneske. Kulturhistoriske skitser tilegnet P.V. Glob*, eds. Robert Egevang et al., 1 (Copenhagen, 1981), pp. 102–111.

¹⁴ See chapter on "Villages".

finance the founding of an abbey there in the mid-twelfth century. Around 1176 he confirmed his gift and encouraged the monks to invite Germans, Danes, Vends, or men of any nationality and following any trade to Dargun and to settle them wherever they wished on abbey lands. He also authorized the brothers to set up parishes, to install priests, and even to keep an inn if they wished to do so according to German or Danish custom.¹⁵

Although three Danish kings, Valdemar I, Canute VI, and Valdemar II, conducted an aggressive and expansionist policy in the Baltic this resulted in little Danish colonization.¹⁶ Conversely, Danish territory was open to German colonization. In the district around Fredslet and Jernved, on the southern border of his realm, ‘the king had 420 *mansi* (*hove*) of land between Slien and the Eider’ according to *King Valdemar’s Survey* (1231). This land was certainly assarted by German settlers.¹⁷ In north-eastern Germany, Poland, and the Baltic countries the Danish kings contributed instead to the establishment of an adequate military, political, and religious infrastructure for colonization by settlers from Germany and the Netherlands. Whereas in the previous centuries the Danes had established significant colonies in England and Normandy, by the High Middle Ages Danish colonization manifested itself primarily in the establishment of new villages within the boundaries of Denmark alone.¹⁸

As already noted, woodland was the most important biotope that was subject to medieval colonization. The chapter on villages of this book describes the clearings and many new settlements that sprang up close to the border with Germany and in southern Sealand around 1200. Extensive clearings and settlements were made in northern Sealand too.¹⁹ A great number of the royal estates listed in *King Valdemar’s Survey* are located in and around this ancient forested area. These estates included: Søborg, Gribskov, Karlebo, Sjælsø, Slangerup, Smørum, and Lyngby. *King Valdemar’s Survey* refers to the royal forest at Ørwith, noting that since as early as the mid-twelfth century settlements had been set

¹⁵ *DD*, 1.3, no. 59.

¹⁶ See chapter on “Population”; John H. Lind et al., *Danske Korstog Krig og Mission i Østersøen* (Copenhagen, 2004), pp. 29–96, 199–231.

¹⁷ Per Ethelberg, Nis Hardt, Bjørn Poulsen and Anne Birgitte Sørensen, *Det sønderjyske landbrugs historie. Jernalder, vikingetid og middelalder* (Haderslev, 2003), p. 381.

¹⁸ See chapter on “Villages”.

¹⁹ *Ibid.*

up in its clearings.²⁰ Royal forests on a smaller scale surrounded the present-day town of Sorø.²¹ Some of the most enterprising and powerful individuals and families appropriated large estates in this region. It has been estimated that by the twelfth century more than half the land in the district surrounding Sorø was concentrated in the hands of the relatively few members of the power constellation usually referred to as the Hvide Family.

The woodlands of Sealand were obvious choices for colonization, and were therefore among the places settled by the Cistercians when they arrived in Denmark. The Cistercians came to Esrum around 1150 and settled at Sorø some ten years later. In both places the monks accumulated vast estates during the next half a century. In Jutland the order initially took over the former Benedictine monastery at Veng and subsequently stayed for a while on the island of Kalvø, before moving to 'a place called Øm surrounded on all sides by water and moors, and [they] found there close to the forest between two lakes, Gudensø and Mossø, a piece of land overrun with many bushes'.²² In other words, the monks settled in the woods south-east of Silkeborg, and, like their brothers in Sealand and Scania, were engaged in clearing the forest.

Judging by certain papal charters that survive, the Cistercians continued to clear new land for cultivation until the mid-thirteenth century. Prior to the Fourth Lateran Council (1215) the Cistercians enjoyed freedom from tithes on land cultivated by the monks themselves or at their own cost. The Lateran Council confined this privilege to lands acquired before 1215. Nevertheless, later papal charters show that the monks were granted freedom from tithes in respect of assarts they cultivated themselves, and this liberty was also granted to religious orders other than the Cistercians. In 1218 and 1241, the Pope gave the Augustinians at Æbelholt freedom from tithes arising from assarts they cultivated themselves, while in 1226 and 1245 the Benedictines at St. Canute's Abbey, Odense, acquired the same privilege. In 1257, the monastery dedicated to Our Lady and situated at Roskilde was similarly favoured, as were the Cistercians at Løgum, Jutland, in 1228.

²⁰ Gunnar Olsen, *Kronborg Vestre Birk. Holbo Herred fra oldtiden til vore dage* (Copenhagen, 1961), pp. 77–80; Bo Fritzbojer, "Esrums Kloster Landskaber", *Bogen om Esrum Kloster*, eds. Søren Frandsen et al. (Holstebro, 1997), pp. 79–97.

²¹ H. V. Clausen, *Studier over Danmarks Oldtidsbebyggelse* (Copenhagen, 1917).

²² Nils Hybel, "The Creation of Large-Scale Production in Denmark c. 1100–1300", *Scandinavian Journal of History* (1995), 259–280; *Scriptores Minores Historiae Danicae*, ed. M. C. Gertz, vol. 2 (1922; repr. Copenhagen 1970), p. 176.

The Cistercians at Esrum and Sorø, both in Sealand, acquired freedom from tithes on new lands they cultivated themselves in 1228, and Sorø's privilege was repeated in 1245.²³ The phrase 'freedom from tithes on assarts cultivated by themselves' appears in all these charters. It was a standard phrase that was used from the reform of 1215 until 1245, when it disappears from the papal charters. This development suggests that by the mid-thirteenth century there were several locations in eastern Denmark where uncultivated land was still ready to be brought under the plough.

The small islands in the southern part of the realm were probably even more open to colonization. In the mid-thirteenth century the islands of Lolland and Falster were less cultivated than Sealand and Møn. If we compare the List of Ploughs recorded in *King Valdemar's Survey* with estimates of the productivity of the land shown in the national survey of 1688 and then with the number of acres (*tønder land*)²⁴ in Sealand, Møn, Lolland, and Falster in 1905, we find a fair correlation between the number of ploughs, the acreage, and the productivity of land on a parish by parish basis throughout Sealand and Møn.²⁵ This is not the case in Lolland and Falster: the List of Ploughs records fewer ploughs in relation to the productivity of the land as recorded in 1688 and the number of acres surveyed in 1905 than we saw in Sealand and Møn. For many years historians have been aware of this disproportion, and over the last century various explanations have been put forward.²⁶ Recently, a reasonable assumption has been made that around 1230 Falster and, more particularly, Lolland were less

²³ *DD*, 1.5, no. 138; 1.6, nos. 62, 75, 76, 77; 1.7, nos. 75, 164, 286, 287; 2.1, no. 234.

²⁴ 1 *tønde land* = 5,520 square metres. 1 acre = 4,050 square metres.

²⁵ Ulsig and Sørensen, "Studier i Konge Valdemars Jordebog, 1–26.

²⁶ This disproportion led Kristian Erslev to distrust the reliability of the List of Ploughs in *King Valdemar's Survey*. Kristian Erslev, *Valdemarernes Storhedstid* (Copenhagen, 1898). Aksel E. Christensen has related the small number of ploughs in Lolland and Falster to low taxes resulting from Vendish raids on these islands. Aksel E. Christensen, "Danmarks befolkning og bebyggelse i Middelalderen", in *Befolkning i Middelalderen* (Nordisk Kultur, 2), ed. Adolf Schüch (Oslo, 1938), pp. 1–57. In his doctoral thesis, Svend Gissel notes that the relatively few ploughs recorded in Lolland and Falster suggest that three course rotation had been introduced into these islands, whereas until the mid-thirteenth century two course rotation was still used in many parts of Sealand. Svend Gissel, *Landgilde og udsæd på Sjælland i de store mageskifters tidsalder* (Copenhagen, 1968), p. 294.

cultivated than Sealand and Møn.²⁷ The archaeological demonstration that some villages continued to be moved until about 1300, and the fact that there are relatively few torphs, i.e. new villages, in Lolland and Falster, together with the late foundation of some of the latter, point in the same direction.²⁸

Deserted Land

Denmark was not wholly cultivated in the High Middle Ages even in the eastern parts of the country. In the thirteenth century there were still areas not converted to arable land: one reason for this was simply that commons were essential to medieval agriculture, while in some places arable land had been deserted for various reasons and for shorter or longer periods. Desertions are known from the early twelfth century: according to Saxo these were caused by bad weather, as during the reign of the notorious King Oluf Hunger, or by pirates and war before peace, law, and order were established by Valdemar I and Archbishop Absalon. This assertion should be treated with care: it formed part of Saxo's propaganda. King Oluf's nickname was not completely justified,²⁹ and Saxo's lurid claim that 'all villages in eastern Jutland were deserted, from Vendsyssel to the Eider, and the fields were waste' due to piracy during the feud between Svend, Canute, and Valdemar in the 1140s and 1150s should be viewed cautiously.³⁰ But these dramatic stories certainly throw into relief the stable situation that allegedly began with Valdemar's reign. Similar Saxo's assertion that 'the eastern and southern part of Sealand was waste and barren' during the feud sounds dramatic. It cannot be denied that war and unrest could cause some parts of the country to be abandoned, but it is not true that almost a third of the realm was laid waste when Valdemar I came to the throne, as Saxo claims.³¹

Judging by provincial laws, desertions were not widespread in the twelfth and thirteenth centuries. When they did occur, the difficulties

²⁷ Inger Merethe Bak, *Befolkning og bebyggelse i 1200-tallets Østdanmark—Omkring Plov-talslisten i Kong Valdemars Jordebog*, unpublished thesis for the master degree, University of Copenhagen (1999).

²⁸ See chapter on "Villages"; Clausen, *Studier*, p. 120.

²⁹ See chapter on "Climate".

³⁰ See chapter on "Marine Resources".

³¹ Saxo, book 14, chapters 15,5 and 20,2.

they created are not addressed particularly thoroughly in the laws. The Law of Scania, later paraphrased by Anders Sunesen, does not tackle this problem, but is content to regulate the distribution of uncultivated land, i.e. forests and heaths. Nor does the Law of Jutland include provision for desertions. Only Erik's Law of Sealand touches upon the subject, with one chapter dealing with fishponds abandoned as a result of overfishing, and another laying down rules for the settling of disputes arising from ownership of wasteland or deserted thorps.³² In other words only one chapter in the provincial laws is concerned with deserted land, farms, and villages. All the same the precise moment when this chapter was written has been interpreted as the point in the thirteenth century when the creation of thorps had peaked and begun to decline.³³ Today this conclusion must be rejected. Some parts of the realm were not extensively cultivated, and new villages were founded well into the thirteenth century. In addition there is only very little information available to us regarding desertions before 1300. Besides those already mentioned, there exist only two pre-1300 charters which, with a little ingenuity, can be linked with the phenomenon.³⁴ It is not until the fourteenth century that more desertions are indicated, while, as in the rest of Europe, desertions in Denmark do not culminate until the beginning of the fifteenth century.³⁵

³² "The Law of Scania", chap. 71, "Anders Sunesen's paraphrase", chap. 32, "Erik's Law of Sealand", book 3, chaps. 7 and 8, *Danmarks gamle Landskabslove med Kirkelovene*, eds. Johannes Brøndum-Nielsen and Poul Johannes Jørgensen, 1, 2, 5, 6 (Copenhagen, 1933, 1936, 1937).

³³ C. A. Christensen, "Ændringerne i landsbyens økonomiske og sociale struktur i det 14. og 15. århundrede", *HT*, series 12, 1 (1963–66), p. 344.

³⁴ One source is an account of a letter from Archbishop Absalon in the chartulary of Sorø Abbey explaining the establishment of this house 1162. Because the Benedictines had abandoned their institution on Absalon's hereditary estate he fetched Cistercians and installed them on the land. The other source is a deponent from the *thing* held in the district of Slagelse mentioning an estate named *Øthemark* (wasteland). *DD*, 1.3, no. 225, 2. 2, no. 420; Anne Jappe, *Ødelæggelser, befolknings- og produktionsstrukturudvikling i Danmark 1170–1370*, unpublished thesis for the master degree, University of Copenhagen (2001).

³⁵ Late medieval desertions are among the most systematically researched fields in north European medieval studies. In the German-speaking world, literature on the topic produced since the mid-nineteenth century has grown to hundreds of publications. In England the first major study appeared in the 1920s, and in 1952 the Deserted Medieval Village Research Group was founded. Its Nordic counterpart, the Scandinavian Research Project on Deserted Farms and Villages, was established in 1968. Svend Gissel et al., *Desertions and Land Colonization in the Nordic Countries c. 1300–1600. Comparative Report from The Scandinavian Project on Deserted Farms and Villages* (Stockholm, 1981); Nils Hybel,

Clear proof of desertions in Denmark before the plague epidemics of the mid-fourteenth century has traditionally been drawn from a survey carried out for the Canons of Aarhus Cathedral sometime between 1313 and 1321.³⁶ The survey notes that fields lay waste in some of their villages. However, as the productivity of these fields is also included, it is difficult to decide whether they are records of abandoned land or estimates of potential expansion.³⁷ Other entries in the survey list the amount of village land owned by the canons, along with its former revenue or the number of tenants originally living there. It is difficult to be certain whether these entries document desertions or not. In contrast the survey is unambiguous when it claims that three of the canons' twelve crofts at Følle lay waste. There is, in fact, little proof of desertions in the survey of the Canons of Aarhus, an indication that this was not a serious problem in Denmark in the early fourteenth century.

Nor does the period from c. 1320 to 1350 offer any indication that the country suffered from widespread desertions. In these years there are only few such cases, for instance in 1329, when the knight Lars Johansen sold 'wasteland in Thorp mark worth five *ørtug* grain a year'. Another document dating from the same year shows that Gertrud Nannesdatter pawned 'all her wasteland in Tolstrup'. In 1342 Stig Andersen sold his 'estate called Tordrup' and all his land in 'Væt, Jebjærg, Værum, Haslum, and Tebbestrup, together with wasteland'.³⁸ None of these cases documents the fact that the wasteland had been inhabited but was now deserted, although the assessed rent in the first case gives us reason to believe that the land at Thorup really was deserted. It is doubtful that the two other cases indicate desertions but even if they do, they can hardly be put forward as strong arguments for widespread desertions having occurred before 1350.

Some scholars object that these few documents represent only the tip of the iceberg. It has been argued that legally there was no reason to mention that land was either waste or cultivated.³⁹ It cannot be denied, of course, that in some cases information concerning the status of the

"Ødelæggelser og økonomisk krise i nordvesteuropæisk senmiddelalder", in *Kongemagt og samfund i middelalderen*, eds. Poul Enemark et al. (Århus, 1988), pp. 317–335.

³⁶ *Århus Domkapitels Jordebøger*, 3, ed. Poul Rasmussen (Copenhagen, 1975).

³⁷ C. A. Christensen has argued for the former interpretation, while Erik Ulsig has spoken for the latter. Christensen, "Ændringerne," 257–349; Erik Ulsig, "Pest og befolkningsnedgang i Danmark i det 14. århundrede", *HT* 91 (1991), 21–43.

³⁸ *DD*, 2.10, nos. 95, 148.

³⁹ Christensen, "Ændringerne", 346.

land might simply have been omitted from the documents, but this is pure speculation. The very detailed nature of the sources suggests the contrary, in that comments on the status of the land were rarely omitted. Information relating to land that was sold or pawned as either waste or cultivated was relevant for the buyer or the person accepting the pawn because it would affect expectations of future profit. Nevertheless, it is also true that in some documents information of this nature could have been neglected or omitted, while the documents in general might well have had an accidental character. However, there are a number of references to deserted land and farms in documents dating from the second half of the fourteenth century, and in particular from the first two decades of the fifteenth century.

References to deserted farms and wasteland rise constantly from about 1360 and culminate in 1401 to 1420, after which they dwindle towards 1460 at more or less the same speed that they increased from the mid-fourteenth century to the early fifteenth century.⁴⁰ Unfortunately it is not possible to check this trend in charters, title deeds, mortgage deeds, and letters on the basis of information from surveys. Such verification can only be made for the period c. 1315 to 1370. The records made for the Canons of Aarhus constitute the oldest surviving manorial survey in Denmark, and are followed by the survey carried out for the Bishop of Roskilde c. 1370, although this also includes retrospective passages from the late thirteenth century. Subsequent Danish surveys date from the sixteenth century. The only relevant source of this type then, the Roskilde survey, dates from the beginning of the desertion process witnessed in the Late Middle Ages, and in fact contains a number of references to wasteland in Sealand. Two estimates have attempted to assess how large a proportion of the bishop's estates was deserted when the survey was made, i.e. 20 years after the Black Death swept Europe. These estimates differ for various reasons, not least because different methods were used to calculate them. On the basis of one of the estimates a desertion ratio of 9.42 per cent can be computed, on the basis of the other the ratio is shown as only 4.53 per cent. In addition, the survey probably does not account for all of the land held by the bishop and thus we are presented with figures that are perhaps quite unrealistic. It is remarkable, however, that the higher of the two desertion ratios noted above is roughly the same as the ratio that can

⁴⁰ Ibid.

be calculated on the basis of various documents dating from the years 1361–1380. The most certain conclusion to be drawn, however, is that it was the smallest farms on the Bishop of Roskilde's estates that suffered most, a point corroborated by the Aarhus survey.⁴¹

The desertions were not evenly distributed throughout the country. In the Roskilde survey no desertions are referred to at all in ten out of the bishop's 28 *exactionis*, but by 1370 some places were already severely hit. In three out of the seven villages attached to the manor of Gjorslev all the bishop's land was deserted. Rollerup near Slagelse had nine villages, but the eight deserted farms listed in the survey were clustered together, with seven in Vedbysønder and one in the village of Hundsdaale. In the remaining seven villages none of the bishop's farms was deserted. The same pattern can be found in the bishop's *exactionis* at Dragsholm, Lekkinge, and Hjortholm. The largest of these, Dragsholm, comprised 64 villages, most of them situated in the districts of Ods, Skippinge, and Tuse. In only eight of the villages are desertions recorded, and in four of these it is cottages that have been abandoned. Apparently in this *exactio* only a little arable land was given up. In the 28 villages that made up the *exactio* of Lekkinge, south-eastern Sealand, minor desertions can be found in eight villages. In contrast there were several deserted farms in the *exactio* of Hjortholm, north of Copenhagen. The desertions were concentrated in the southern part of the Lynge-Kronborg district and in the northern part of the district of Sokkelund. Some places suffered badly: in the village of Øverød half of the bishop's twelve farms were deserted. In some villages none of the bishop's farms was deserted, while other villages suffered more. This pattern shows clearly in the villages surrounding Copenhagen. In Nyby, Solbjerg, and Valby the desertion ratio fluctuates from 41.6 per cent to no less than 62.5 per cent. In contrast Vigerslev and Serridslev were unaffected.⁴² In the national survey carried out in 1688 three of these suburban villages had disappeared, namely Nyby, Solbjerg, and the large village of Serridslev.⁴³

⁴¹ Per Raslow's study is based on the Roskilde survey alone. Per Raslow, "Ødegårde og landgilde i Ods herred i det 14. århundrede", *HT*, series 13, 2 (1975), 15–16. C. A. Christensen's approach was more laborious: 'The principle has been to trace and identify the desertions in the survey in later surveys, deeds, enfeoffments, etc.' Christensen, "Ændringerne", 266, 269–277. Raslow and Christensen agree that the number of farms in the survey is not a maximum figure.

⁴² Raslow, "Ødegårde", 14–19.

⁴³ See chapter on "Manors".

In Sealand the so-called Pannage Area (*Oldenområdet*) in the Horns district (*herred*) suffered most from desertions. In this region the abandoned village fields were usually transformed into demesne and/or pasture. The desertions began in the late fourteenth century and continued until the second half of the fifteenth century. The total number of *mansi* in the Pannage Area dropped by 37 per cent from approximately 74 to 54 between 1300 and 1682. By way of comparison, the number of *mansi* in the Horns district as a whole fell by only 10 per cent.⁴⁴ This figure is not dramatic if we consider that the most widespread and well-known desertions in the country took place in this district. In addition, some abandoned villages in the Horns district outside the Pannage Area were converted to demesnes or included in fields belonging to other villages. This praxis was also followed in Falster. The dismantling of villages, in other words, did not always indicate a proportional reduction in arable land. In some cases settlements were concentrated, and the names of abandoned villages survived as simply the names of fields.⁴⁵

No doubt much arable land lay waste in the early fifteenth century when the desertion process peaked, but in the longer term the losses were compensated for. Apart from the Pannage Area there is not much indication of a massive conversion of abandoned arable land into pasture. If we compare the situation in 1240 with the one that pertained in 1688, the area of arable land in Sealand thus appears to have remained constant.⁴⁶ Furthermore, it has been estimated that the arable cultivated on the island of Falster changed little from the thirteenth to the sixteenth centuries.⁴⁷ In the Duchy of Schleswig arable land probably expanded in the Late Middle Ages because many tenants in the pastoral midlands of the Duchy gave up their farms and emigrated to the arable east. The decrease of arable land in the midlands was counterbalanced by colonization in the fertile eastern part of Schleswig.⁴⁸ Furthermore, in the west of the country 18,337 hectares of land were reclaimed from the sea between 1450 and 1474.⁴⁹

⁴⁴ *Hornsherred undersøgelsen*, Det nordiske Ødegårdsprojekt, ed. Svend Gissel, publication no. 2 (Copenhagen, 1977), pp. 161–194, 310–316.

⁴⁵ See chapter on “Villages”.

⁴⁶ Ulsig og Kjær Sørensen, “Studier i Kong Valdemars Jordebog”, 1–26.

⁴⁷ Henrik Pedersen, “Udsæden og det dyrkede areal på Falster i sidste halvdel af det 17. århundrede”, *HT*, series 8, 1 (1907–08), 101–137.

⁴⁸ H. V. Gregersen, *Det skæve Sønderjylland—hvorfør? Om senmiddelalderens ødelæggelser vest for israndslinjen og fremgangen i egnene mod øst* (Åabenraa, 1990).

⁴⁹ Ethelberg et al., *Det Sønderjyske*, p. 553.



Ill. 2. Kliplev Church in eastern Schleswig

The Total Arable Area

It is impossible to assess the total area of arable land available in Denmark during the Middle Ages. Only fluctuations in its size can be estimated, and even these are subject to uncertainty. Place-name research has established that most of the village names bearing the more recent suffixes are pre-medieval in origin. It is therefore tempting to use this factor alone to suggest that the expansion of arable land was strongest in the Viking Age, but this cannot be assumed. Firstly, there is no clear-cut connection between the foundation of villages and an increase in arable acreage. A provision contained in the Law of Jutland concerning the relationship between the old villages and the *thorps* shows that twelfth-century jurists were aware that new villages were sometimes established as substitutes for old settlements. Secondly, archaeology has demonstrated that new villages appeared as late as the fourteenth century. Thirdly, pollen analysis, Saxo's descriptions of the countryside in Sealand, and the Law of Scania all suggest a chronology of colonization that differs from the chronology apparently supported by place-name studies. Pollen analysis indicates that arable land declined

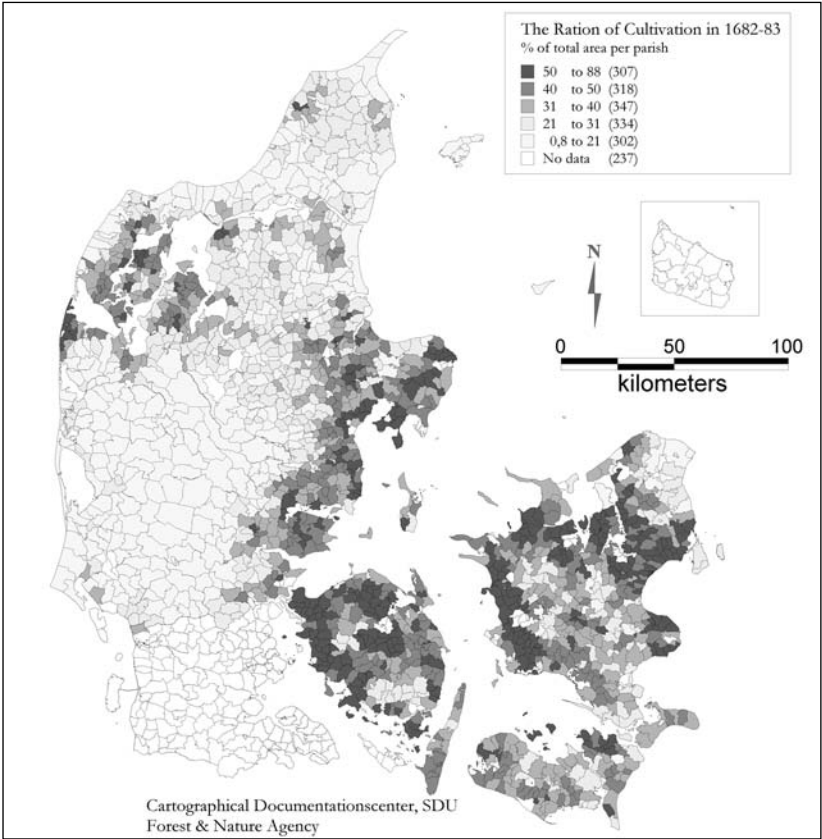
from about 500 A.D. and that colonization only really gained impetus well into the High Middle Ages. Saxo confirms this construction with his observations on potential and actual assarting around 1200, and so does the provision in the Law of Scania referring to the villagers' clearings in woods, heaths, or other wasteland. It has also been shown that colonization was still taking place in Lolland and Falster in the mid-thirteenth century, and there were doubtless similar occurrences in other parts of the country too. All the signs are that the expansion of arable continued into the fourteenth century.

Only a few scattered indications of abandoned arable land can be found in the High Middle Ages. The concept of widespread desertions of farms, villages, and arable land in the fourteenth century simply cannot be substantiated. Not until the end of this century did agriculture decline for a time, a nadir being reached in the 1420s. Thereafter the extent of wasteland fell. At the end of the Middle Ages the arable area in Denmark had probably returned to the level it had attained in the early fourteenth century.

Unfortunately the development of arable land between 1550 and the date of the national survey in 1688 cannot be traced, but nothing speaks in favour of a significant expansion. If this deduction is correct, and if the development of arable land in the Middle Ages (as outlined above) proves fairly true, a tentative image can be constructed of the extent of arable land available in parts of Denmark when it peaked in the early fourteenth century and the first half of the sixteenth century.

The national survey of 1688 details the productivity of arable area in *tønder hartkorn* excluding the medieval provinces of Scania, Halland, Schleswig, and Holstein. When the same arable area was surveyed in 1682–1683, 1,933,216 *tønder land* was under the plough.⁵⁰ In relation to the total area of the realm at that time this indicates a cultivated proportion of 29 per cent, but not surprisingly the ratios in east and west Denmark differed. The 1688 survey reflects the correlation noted at the beginning of this chapter, i.e. between the type of soil and the cultivation ratios. Arable farming was more prevalent on clay soil than on sandy soil, and therefore arable land covered more of eastern Denmark than Jutland west of the watershed. In western Jutland the

⁵⁰ *De danske Landbrug fremstillet paa Grundlag af Forarbejderne til Christian Vs Matrikel 1688*, ed. Henrik Pedersen (1928, repr. Copenhagen, 1975), p. 353.



Map 2. The Ratio of Cultivation in 1682–83. No data from the Duchy of Schleswig.

cultivation ratio was generally below 20 per cent and in many places below 10 per cent. Among the most extensively cultivated districts were the plain west of Copenhagen, western Sealand, western Funen, Mols, and the district surrounding Aarhus.⁵¹

⁵¹ Grau Møller, *Kulturhistorisk inddeling*, pp. 27–28.

MARINE RESOURCES

Denmark is surrounded by water, salt water, accessible along an extensive coastline. Around 1070, Adam of Bremen wrote: "The land of the Danes is almost completely divided into islands".¹ In *King Valdemar's Survey* (c. 1230) the scribe noted that "as many are the islands around Blekinge as the days of the year".² The numerous islands, inlets, and bays have given Denmark distinct advantages. The importance of lakes and fresh water should not be underestimated but nearness to the sea, of course, constitutes a fundamental condition for the feeding of, and communication by, the people of Denmark. The location of the country at the convergence of two seas, on the one hand the open Atlantic—the North Sea—and on the other the enclosed Baltic, is correspondingly of fundamental importance for the country's economic and political exchanges.

The Coastline

The coastline has never been fixed, although around 4500 B.C., after a considerable rise in the sea level, it more or the less settled in its present position.³ While variations in the coastline after c. 1000 A.D. were quite small, from the point of view of medieval man they were important, as they had a direct impact on both the use of fields and meadows and on navigation. Even a few decimetres could play a decisive role in accessing towns by means of inlets and small rivers.⁴

Doubtless the climatic changes already noted in this study affected sea levels, although the connections are not always clear. Warmer average temperatures during three periods, i.e. around 1000, at the

¹ *AB*, 226.

² *KVJ*, 31.

³ *Atlas over Fyns kyst i jernalder, vikingetid og middelalder*, eds. Ole Crumlin-Petersen, Erland Porsmose, Henrik Thrane (Odense, 1996), pp. 28 ff.; Jan Bill, Bjørn Poulsen, Flemming Rieck and Ole Ventegodt, *Fra stammebåd til skib. Dansk søfarts historie, 1. Indtil 1588* (Copenhagen, 1997), pp. 13 ff.

⁴ Ole Crumlin-Petersen, "Lynæsskibet og Roskilde Søvej", in *13 bidrag til Roskilde by og egn's historie*, ed. Frank A. Birkebæk (Roskilde, 1979), pp. 65–77.

beginning of the thirteenth century, and from the second half of the fourteenth century to shortly after 1400, coincided with a rise in the sea level.⁵ The consequences of this can be seen in certain areas of Denmark, such as the northern part of Falster, where investigations show that around 1100 a particular section of the ocean floor was 35 cm above the present sea level.⁶ Conversely, climatic deterioration from c. 1600, the so-called *Little Ice Age*, probably caused a lower sea level in Danish waters.⁷ Tectonic changes, i.e. the general elevation of land in the northern and eastern parts of Denmark and the sinking of its southern and western parts, seem on the other hand to have had only minor consequences during the medieval period.

It is estimated that the combination of ice melt and tectonic changes in Denmark in historic times would nowhere have caused a variation of more than one metre from the present sea level.⁸ An investigation of the coastline around Funen concludes that since the birth of Christ the sea level has risen by a maximum of 0.5 m above the present level and dropped to 0.75–1.0 m below.⁹ Some Danish regions, however, experienced more significant variations, as on the west coast of Schleswig. The sea level here fell around 700–900 A.D. but rose again in the eleventh and twelfth centuries, a trend perhaps explained by ice melt from the Poles around this time.¹⁰ Investigations of the coastal area near the Schleswig town of Tønder have demonstrated that the sea level rose 1.5 m between the thirteenth and sixteenth centuries.¹¹ This rise corresponds with the climatic development suggested by isotope data from Greenland, which shows a warm period beginning in the second part of the fourteenth century and culminating shortly after 1400.

The shape of the Danish coast is also influenced by flood water, streams, and tides, and it was the Wadden Sea coast in west Schleswig

⁵ See chapter on "The Climate".

⁶ Jan Bill, *Skib og havn i middelalderen—en transportarkæologisk studie*, unpublished thesis for the master degree, University of Copenhagen (1993), p. 26.

⁷ Jens Thyge Møller, "Engang en del af havet: Fjorde og søer i Ulfborg herred", *Mellem hede og hav*, p. 43.

⁸ Ole Crumlin-Pedersen, "Ship Finds and Ship Blockages A.D. 800–1200", in *Archaeological Formation Processes. The representativity of archaeological remains from Danish Prehistory*, ed. Kristian Kristiansen (Copenhagen, 1986), p. 216; Bill, *Skib og havn i middelalderen*, p. 27.

⁹ *Atlas over Fyns kyst*, p. 29.

¹⁰ H. J. Kühn, *Die Anfänge des Deichbaus in Schleswig-Holstein* (Neumünster, 1992), pp. 9 ff.

¹¹ Lennart Madsen, "Undersøgelser af værfter i den danske mark", *Sønderjysk Månedsskrift* 1997: 1–2, p. 12.

that was exposed to the most dramatic changes.¹² Alterations common to the entire coastal area between the Netherlands and the Ribe region of Denmark were caused by both sea and man.¹³ Along the coastline here are marshes created by deposits of sand, silt, and clay. The human impact of the struggle to gain meadows from the marshes meant that drainage ditches were dug, causeways built to access farms, boatbuilding yards erected, and dikes constructed. Although apparently unpopulated in the period 300–600 A.D. the marshes of Schleswig were settled by peasants from the seventh and eighth centuries.¹⁴ The thirteenth century saw large fields protected by dikes, but also a sea level that was rising. This subsequently exposed the land to a series of floods during the fourteenth and fifteenth centuries. The most violent flood on record was *de grote mandrenke*, (literally ‘the great drowning of men’) on 15–17 January 1362, which ravaged the Friesian coast from the Netherlands to Denmark.¹⁵ The Schleswig Chronicle records that on the island of Strand (partly identical with present-day Nordstrand) 30 churches and parishes disappeared.¹⁶ In 1367 the provost of the diocese of Schleswig complained that since coming to office in 1362 he had received no revenues from Strand “because of the flood”. The register of lands owned by the chapter of Schleswig Cathedral dates from 1437 and notes the income lost from the west Schleswig area. It is clear that churches, villages, farms, and meadows were inundated. In all, 44 churches were taken by the sea.¹⁷ The ocean also wreaked havoc further north. Several villages in the vicinity of Ribe disappeared.¹⁸ In the district

¹² Per Ethelberg, Erik Jørgensen, Dirk Meier, David Robinson, *Det sønderjyske landbrugs historie. Sten- og bronzealder* (Haderslev, 2000), pp. 40–54.

¹³ Dirk Meier, “Landschaftsentwicklung und Siedlungsmuster von der römischen Kaiserzeit bis in das Mittelalter in den Schleswig-Holsteinischen Marschen”, *Schriften der Naturwissenschaftlichen Verein Schleswig-Holsteins* 63 (1993), pp. 117–144; Dirk Meier, *Landschaftsentwicklung und Siedlungsgeschichte des Eiderstädter und Dithmarscher Küstengebiete als Teilregion des Nordseeküstenraumes*, 1–2 (Büsum, 1997).

¹⁴ Per Ethelberg, Erik Jørgensen, Dirk Meier and David Robinson, *Det sønderjyske landbrugs historie. Sten- og bronzealder* (Haderslev, 2000), p. 44.

¹⁵ Ib Gram-Jensen, *Stormfloder*, Danish Meteorological Institute, Scientific Report 91–1 (Copenhagen, 1991); Albert Panten, „Die Nordfriesen im Mittelalter“, in *Geschichte Nordfrieslands*, 2nd ed. (Heide, 1996), p. 71.

¹⁶ Panten, „Die Nordfriesen im Mittelalter“, p. 72.

¹⁷ C. A. Christensen, “Krisen på Slesvigs domkapitels jordegods 1352–1437”, *HT*, series 11, 6 (1960), p. 222.

¹⁸ *DD*, 3. 9, no. 278; Rep., 1. ser., 4179; Henrik Fangel, “Bebyggelsesudviklingen ca. 1250–1600”, in *Marsk, land og bebyggelse. Ribeegnen gennem 10.000 år*, ed. Stig Jensen (Århus, 1998), 1, pp. 228–229.

of Edomsherred, between Nordstrand and Pellworm, the booming town of Rungholt, along with its six churches, fell victim to the sea.¹⁹

Clearly these floods were unusually destructive. They can be explained partly by the rise in sea level noted above, although it is also true that the flood of 1362 was exceptionally destructive by any standards. It is also significant that some areas within the dikes were very low-lying and indeed sinking. The ploughing of moorland and cutting of salt turfs over a period of many years had resulted in subsidence.

Later, those living along the Schleswig coast were generally able to protect themselves by means of dykes but storms always had the potential to break through. On 1 November 1532 a flood rose and the Chronicle of Eiderstedt noted that:

the water was three feet (1 m) all over Eiderstedt and in that way about a thousand people drowned in the low lying areas and also many cattle... This flood was also terrible in Nordstrand, for there about 1,900 people, young and old, drowned.²⁰

Along the western and northern coasts of Jutland the natural movement of sand and gravel has led to considerable erosion and new deposits. Near Fjerritslev, in the Jammer Bay, situated in the north of Jutland, there are still shipwrecks from the thirteenth century lying several hundred metres inland and covered by deep layers of sand and gravel.²¹ Another significant example of the power of sand erosion is the silting up of the Limfjord in the twelfth century.²² Besides changing the Danish transport system, this meant that the ecology of the Limfjord was transformed from salt water to a habitat dominated by brackish water.

In other places inlets and small rivers often sanded up, as we hear in Saxo's account of Suså, a river in Sealand, written around 1200: "In

¹⁹ Panten, Albert, „Entwurf zur Besiedlungsgeschichte der Pellwormharde (1200–1551)“, *Die Heimat*, 90 (1983), 160–164; QS, pp. 6, 57, 99, 100; Jörn Hagemester, *Rungholt. Sage und Wirklichkeit*, (St. Peter-Ording, 1983).

²⁰ *Chronicon Eiderstadense vulgare oder die gemeine eiderstedtische Chronik 1103–1547*, ed. Johannes Jasper (1923; repr. St. Peter-Ording, 1977), p. 85.

²¹ This applies to the finds from Kollerup and Vigso. Jens Thyge Møller, "Kollerup-koggen. Opmåling af et middelalderskib og nogle tanker om fundstedet", *Antikvariske studier* 4 (1980), 143–160.

²² David N. Penney, "Sejlruter fra Limfjorden: forbindelser til Nordsøen i Holocænet belyst ved mikrofossilanalyser", in *Limfjordsprojektet. Rapport nr. 5. Kommunikation ved Limfjorden fra fortid til nutid*, ed. Jørgen Lund (Århus, 1992), pp. 31–44; Frank Andreasen and Ole Grøn, "Sløjkanalen—Limfjordens udløb mod nord", *Marinarkeologisk Nyhedsbrev fra Roskilde* 3 (1994), 11–14.

olden times the river was navigable but now it is so overgrown with gravel and mud that few vessels are able sail into its narrow stream".²³ At a time when ships were demanding greater draught, such impediments caused serious complications for sea traffic and hampered the accessibility of harbours.

Marine environments

Clearly the coast was perilous when high water threatened or hostile groups invaded the country but on the other hand it offered great potential for settlements orientated towards the sea.

It appears that generally speaking the pronounced maritime orientation of settlements was quite new in the Middle Ages. An investigation carried out in Funen shows that between 200 and 500 A.D. the population withdrew from the coastal area.²⁴ This trend was only partly reversed in the following centuries and during the Viking period, while in the Middle Ages coastal woodlands were cleared and towns and permanent fishing settlements grew up. The earliest signs of this development were around 1000, when large villages were established with their lands stretching to the coast their dwellings situated as far inland as possible. It was not until the fifteenth century that the coastal woodlands themselves became the object of colonization. During the fifteenth and sixteenth centuries, farms and villages were built in these areas in large numbers, although they were solitary rather than clustered in groups. At the same time, settlements were planted on small islands near the coast and permanent (i.e. non-seasonal) fishing villages became numerous. Similar movements towards the coast can be found in other parts of the country. In some areas, settlements neared the coast as early as the thirteenth century. Stevns, in the east of Sealand, with its cliff facing the Sound, saw new villages spread from inland to cliff top in this century: Tommestrup, Højerup, Ullerup (deserted c. 1400), Råskov (deserted c. 1400), Højstrup, and Lund.²⁵

²³ *Saxo*, 7,8,5.

²⁴ *Atlas over Fyns kyst*.

²⁵ Bjørn Poulsen, "Middelalderens landsby på Stevns", in *Landsbyer på Stevns—før og nu*, 2, eds. Jens Herluf Jensen, S. P. Jensen, Per Nyord, Bjørn Poulsen and Henning Poulsen (Hvidovre, 1982), p. 7.

The exact factors that led to the spread of coastal settlements in the Middle Ages are not completely clear. Demographic pressure only partly explains the phenomenon. There are few signs of expansion in the period 1000–1200, when the increase in population was moderate. Fishing was already vital to rural communities in the Viking Age but it is quite possible that the importance of this as a local industry increased during the Late Middle Ages and could have pulled the population and its settlements towards the coastline. Moreover, fishing was not the only livelihood available: commercial shipping was carried out by peasants, along with salt manufacture and stone cutting.²⁶ Dangers from the sea limited settlement near the coast. In the case of Funen it is reasonable to connect the decline in coastal settlements from c. 200 A.D. with the widespread violence and war also evident in this period, in other words to what we could term an economy based on plunder. Looting from the sea also explains the inland location of villages like those established on the island of Funen in the eleventh and twelfth centuries. It has been pointed out that these raids must have been carried out by the Wends, a Slavonic people from the southern part of the Baltic, as the withdrawn situation of villages is most pronounced in south-east Funen facing the direction from which they would have come.²⁷ This clearly indicates that it was fear of attacks from the south that dictated the location of settlements in the High Middle Ages.

Historians disagree as to the importance of Slavonic raids on Denmark but for the moment there is a tendency to play down their significance.²⁸ The historian Saxo, writing his chronicle around 1200, observed that all the villages in the eastern part of Jutland were deserted but this is generally viewed as propaganda. Similarly, his note that there were only very few inhabitants left in Funen is not taken seriously. Nonetheless, there is documentation to prove that the twelfth century was a period of great insecurity. Direct evidence is supplied by the will of Bishop Svend, which dates from 1183 and bequeaths land to the Abbey of Øm: the bishop feels compelled to add that these lands were not worth much as they were situated near the sea and abandoned

²⁶ Poul Holm, *Kystfolk. Kontakter og sammenhænge over Kattegat og Skagerrak ca. 1550–1914* (Esbjerg, 1991), pp. 36–45.

²⁷ *Atlas over Fyns kyst*, p. 158.

²⁸ Kurt Villads Jensen, “Vendertogene”, in *Den Store Danske Encyklopædi*, 20 (Copenhagen, 2001), p. 74; Bill, Poulsen, Rieck and Ventegodt, *Fra stammebådtil skib*, pp. 101 ff.

to the piracy of pagans.²⁹ Archaeology shows that Saxo is right when he observes that “bays and creeks were closed with long stakes and cross bars, so that the pirates should not sail there”. Modern research has confirmed that there were indeed many off-shore defence works, such as stakes, put up in Danish waters during the twelfth century.³⁰ Presumably the period 1000–1200 was still characterized by the plunder-based economy first witnessed in the Iron Age, while the Slavonic menace only increased the danger to which the coastal inhabitants were exposed. Until this economy changed, rural settlement could not expand into the coastal zone.

If we turn to the towns it is possible to see a corresponding maritime orientation during the Middle Ages. Admittedly the chronicler Adam of Bremen was right when around 1070 he wrote about Jutland: “where inlets cut into the land, there large towns are situated”.³¹ A number of towns in Jutland were situated near inlets at an early stage. On the other hand, it is also true that Danish towns established before 1200 were not generally located near the sea: nearly two-thirds lay inland and a considerable number of these were not even connected to the sea by rivers.³² In the period c. 1200–1270 the situation changed and new towns were built in inlets, with more than half of these situated in such locations. As in the earlier period, before 1200, only one sixth of these towns were sited immediately beside the sea. Later, in the years c. 1270–1350, most towns were founded on the coast, some in inlets and by then it is clear that there was a general movement towards the sea.

There are two explanations for this change in orientation. Firstly, the plunder-based economy died out from c. 1200 with the establishment of a strong kingdom under Valdemar the Great and his successors. Piracy from the south stopped. Secondly, a new commercialized economy sprang up and towns situated near sea trade routes came into their own: about three-quarters of Denmark’s 100 or so medieval towns were built near the open coast or alongside inlets.³³

The attraction of the sea promoted urban growth in coastal areas from around 1200, while from the Late Middle Ages rural settlement in the coastal hinterland was also on the rise. The sea not only provided

²⁹ *DD* 1.3, no. 112. “*quia sunt maritima et paganorum incursibus exposita*”.

³⁰ Bill, Poulsen, Rieck and Ventegodt, *Fra stammebåd til skib*, p. 101.

³¹ *AB*, p. 228. “*Sicubi vero brachia maris occurrunt, ibi civitates habet maximas*”.

³² Jan Bill, *Skib og havn i middelalderen*, p. 40.

³³ Bill, Poulsen, Rieck and Ventegodt, *Fra stammebåd til skib*, p. 119.

opportunities for fishing and hunting, but also the chance of deriving an income from ferrying. Above all it facilitated the exchange of goods between regions and realms.

The sea and its resources

While noblemen and peasants clung to their rights to fresh water lakes and to smaller rivers, it became increasingly common for the kings of Denmark to assert their own sovereignty over navigable rivers.³⁴ The town law of Schleswig (c. 1200) contains the laconic note: “*flumen regis est*”, the river belongs to the king, and this is repeated elsewhere.³⁵ As early as c. 1100 we read that the king had certain rights to the foreshore, i.e. the part of the shore on which there was no vegetation. His claim to wrecks washed up on the shore is documented in letters dated 1104 and 1107, while other letters dating from the mid-twelfth century and from 1186 show that this royal prerogative was sometimes gifted to others.³⁶ The legal aspect of this right is stressed in provincial laws dating from around 1200: in principle ‘wrecks’, in this context defined as either the carcasses of large fish and whales or as ships that had foundered, were to be delivered up to the king’s officers.³⁷

The sea was free to all men, but the king’s right to the foreshore could be pushed far. During the Middle Ages this claim increasingly provided a justification for the imposition of taxes on inshore fishing and also made it possible for the king to claim the right to very large “streams”.³⁸ The *Knyttlinga Saga* describes the power which could be constructed upon this right: an episode, presumably fictitious, shows St Cnut gaining control of Scania by threatening a group of obdurate

³⁴ See Poul Holm, “Kampen om det som ingen ejer. Om rettighederne til den øde jord indtil 1241 som baggrund for den tidlige middelalders bondeuro”, in *Til Kamp for friheden. Sociale oprør i nordisk middelalder*, eds. Anders Bøgh, Jørgen Würtz Sørensen and Lars Tvede-Jensen (Ålborg, 1988), p. 94; Ole Fenger, “Kongeleve og krongods”, *HT* 100 (2000), 257–284.

³⁵ *DGK*, 1, 14 (§ 68).

³⁶ Ole Ventegodt, “Strandretten i Danmark indtil 1365”, *Maritim Kontakt* 6 (Copenhagen, 1983), 59–103; Johannes C. H. Steenstrup, *Studier i Kong Valdemars Jordebog* (Copenhagen, 1873–74), p. 341; Bill, Poulsen, Rieck and Ventegodt, *Fra stammebåd til skib*, pp. 183 ff.; *DD*, 1.2, no. 32, 98; *DD*, 1.3, no. 191.

³⁷ In Scania the right to the beach was enfeoffed to the archbishop. Ingesman, *Ærkesædets godsadministration*, p. 100.

³⁸ Poul Meyer, “Fiskeret. Danmark”, in *KLNM*, 4, col. 327–330.



Ill. 3. The Castle-mound at Skanør, Scania

peasants: “I claim to own the Sound (*Øresund*) and now I intend to forbid you to fish there as you have previously done if you will not do as I demand and support me with what I need”. “The peasants could not do without the herring fishing of the Sound”, as the writer of the saga knew when he composed his text around 1250.³⁹

The primary resource of the sea was fish. The Baltic and North Seas were rich in fish. These supplies were successfully exploited in the Middle Ages, as both written and archaeological sources make clear.

Finds of fish bones illustrate the huge variety of species at the disposal of consumers throughout the Middle Ages. Medieval man recognized this bounty, knew the different fish and where to catch them. Around 1230 *King Valdemar's Survey* carefully recorded deliveries of salmon from rivers in west Jutland and Halland.⁴⁰ In 1509 the Bishop of Schleswig's scribe noted that in Fysingå, a local river on the Schlei inlet, salmon, bream, pike, and the now very rare houting were caught.⁴¹ On the other side of the Schlei, the scribe noted that the Bishop's manor

³⁹ *Knytlinge Saga*, translated by Jens Peter Ægidius (Copenhagen, 1977), p. 48.

⁴⁰ *KVJ*, pp. 6, 25, 34, 37.

⁴¹ *QS*, 6, p. 345.

Stubbe had four fishing fences “giving good catches of eel, fish, and herring.”⁴² Herring and cod were the most important saltwater fish in the Middle Ages but a striking diversity is uncovered by archaeological and written sources.⁴³ Archaeologists investigating medieval levels at the town of Schleswig have found evidence of 27 species of fish, with perch, pike, flatfish, and members of the carp family as the most significant finds, beside cod and herring. This selection mirrors very well the town’s situation on the Schlei inlet, close to numerous small freshwater rivers as well as the Baltic Sea.⁴⁴ Finds from the medieval levels excavated at Aarhus and dating from the tenth to the fourteenth centuries contain remains of piked dogfish, pike, crucian carp, tench, bream, garfish, hake, cod, haddock, coalfish, ling, perch, weever, turbot, brill, and flatfish.⁴⁵ Like Schleswig, the situation of Aarhus beside a stream offered freshwater fish, but saltwater catches from the nearby bay were clearly more important. At Odense the excavation of early medieval houses has revealed the bones of pike, ide, bream, garfish, cod, haddock, perch, viviparous blenny (eelpout), and flatfish, while the castle of Næsholm in north Sealand, inhabited from 1278 to 1340, has furnished the remains of porbeagle, tench, cod, and perch.⁴⁶ The plot of land at Dragør on which a herring market stood from 1320 to 1425 has yielded, not surprisingly, a huge quantity of herring bones, but also the remains of a great deal of cod, as well as pike, eel, haddock, tuna, and flatfish.⁴⁷

Household accounts kept by the nobility record the many species of fish and fish products that were purchased. For instance, in 1536 the castle of Dragsholm was storing 13 flounder, four barrels of whiting, three barrels of dried garfish, four barrels of dried herring, and three

⁴² QS, 6, p. 365.

⁴³ See also Tove Hatting, “Animal Bones from Svendborg”, *Journal of Danish Archaeology* 6 (1987), p. 215.

⁴⁴ Hans Reichstein, “Vergleichende Betrachtungen zur Nahrungsversorgung der Bewohner von Haithabu und Schleswig”, in *Haithabu und die frühe Stadtentwicklung im nördlichen Europa*, eds. Klaus Brandt, Michael Müller-Wille and Christian Radtke (Neumünster, 2002), pp. 169–179.

⁴⁵ Ulrik Möhl, “Et knoglemateriale fra vikingetid og middelalder i Århus”, in *Århus Sønder vold. En byarkæologisk undersøgelse*, eds. H. Hellmuth Andersen, P. J. Crabb and H. J. Madsen (Copenhagen, 1971), p. 322.

⁴⁶ Knud Rosenlund, *Catalogue of Subfossil Danish Vertebrates. Fishes* (Copenhagen, 1976), p. 48. On the dating of this, see Nils Engberg, “Nydatering af voldstedet Næsholm i Odsherred”, *Nyt fra Nationalmuseet* 50 (1991), p. 15.

⁴⁷ Niels-Knud Liebgott, *Stakthaven. Arkæologiske undersøgelser i senmiddelalderens Dragør* (Copenhagen, 1979), pp. 166–167.

small barrels of dried cod. There were also tools for catching porpoise (14 *marsvinebulke*, presumably a sort of pound net), while the salting cellar contained eight barrels of salt, 32 pieces of porpoise meat, and 2½ barrels of porpoise steak ("*marswyn wilbradt*").⁴⁸ In the following year, 1537, supplies at the castle of Helsingborg comprised: a barrel of salted herring and eight barrels of dried herring, seven barrels of smoked haddock and cod, 800 dried haddock, 427 cod, three turbot, 420 hake, three ling, 3,800 flounders, 120 rays, and 1,000 'stomachs' (i.e. fish stomachs), along with 900 *sund* (air bladders from fish, used to provide gelatine in the Middle Ages). The castle also had a barrel of whale blubber and a barrel of seal blubber.⁴⁹

As the above example clearly illustrates, it was not only catches of fish that were used. Provincial laws dating from around 1200 state that stranded whales must be reported to the king's local official but that local people were each permitted to take away a portion each.⁵⁰ Such cases, when a whole community could benefit from creatures washed up on the beach, were strokes of rare good fortune. At other times systematic hunting resulted in catches. The late medieval levels at Dragør have revealed the bones of seal, dolphin, and sperm whale, alongside indications that seal hunting with crossbows was once carried out.⁵¹ The remains of an Arctic white whale at Næsholm Castle must be regarded as a result of a rare case of stranding, as should the bones of a killer whale recovered at the same spot. Perhaps the fact that Næsholm was a royal castle explains why the owner was able to appropriate these remains for himself, using the king's right to the foreshore. On the other hand, there is no doubt that the fairly numerous porpoise bones found at Næsholm are the result of hunting.⁵² The bones indicate that an axe has been used to cut up the catch systematically. The hunt must have taken place in the nearby inlet of Issefjorden. We know from a later period that when the nets were set in March the annual haul could total 800 porpoises.⁵³ Dragsholm, a neighbour of Næsholm, enjoyed a considerable income from porpoises, as is made clear in the late medieval inventory cited above, and the catch apparently resulted in certain

⁴⁸ DMR, 3. ser, 1, pp. 321 ff.

⁴⁹ *Hälsingborgs Historia*, 2, 1., ed. L. M. Bååth (Helsingborg, 1933), p. 463.

⁵⁰ Bill, Poulsen, Rieck and Ventegodt, *Fra stammebåd til skib*, p. 184.

⁵¹ Liebgott, *Stakhaven*, p. 167.

⁵² Vilhelm La Cour, *Næsholm* (Copenhagen, 1961), p. 408.

⁵³ R. Hørring, "Delfiner", in *Salmonsens Konversations Leksikon*, 5, 1916, pp. 920–924.

specialized livelihoods: in 1492 a man living in the village of Kyndby in Hornsherred, on the opposite shore of the Issefjord, is described as the person "who rows the boat for the porpoise hunt".⁵⁴

The diversity of saltwater fish available in the medieval period was huge. It is difficult to establish whether there were significant fluctuations in species of fish and the size of shoals but there are certainly indications that cod and herring, the two most important catches, had a direct impact on each other, the one increasing as the other diminished. Bone finds from the neighbouring towns of Hedeby/Haithabu and Schleswig, for instance, show that during the Viking period cod constituted only one per cent of the total number fish bones uncovered at Hedeby, while herring represented 39 per cent. Similar evidence discovered in Schleswig and dating from the High Middle Ages shows a reverse proportion, with 40 per cent deriving from cod and only three per cent from herring.⁵⁵ Other localities offer a different picture. Bone material from a Viking Age settlement on the Roskilde Fjord at Selsø-Vestby indicates flatfish, cod, and herring as the principal species. It is clear that herring grew steadily in importance: 18 per cent of the material recovered at this site and dating from the eighth and ninth centuries was made up of herring-bones, a figure increasing to 42 per cent in the tenth and eleventh centuries.⁵⁶ Conversely, bone material found at Aarhus (Søndervold) shows that in the tenth to the twelfth centuries cod constituted 8.2 per cent of the total, while in the thirteenth and fourteenth centuries this had dwindled to 2.2 per cent.⁵⁷ These somewhat contradictory changes are difficult to explain and may be due to both consumer taste and a real decline in shoals. It has been argued that climatic changes in the eleventh century contributed towards the rise of Denmark's all-important commercial herring fisheries. The evidence from Roskilde and Aarhus, cited above, supports this theory but the overwhelming importance of cod, rather than herring, in medieval Schleswig counters it. It is true that Schleswig was exceptional, due to its crucial role in the trade and import of fresh fish from the North Sea, not to mention dried cod from Norway. However, even with this obstacle to the thesis removed it still does not seem likely that dwin-

⁵⁴ *Rep.*, 2. ser., 7266.

⁵⁵ Reichstein, "Vergleichende Betrachtungen", pp. 169–179.

⁵⁶ Inge Bødker Enghoff, "Danmarks første sildeindustri?", *Marinarkæologisk nyhedsbrev fra Roskilde* 6 (1996), 2–4.

⁵⁷ Möhl, "Et knoglemateriale", pp. 321–329.

dling shoals of herring in the sixteenth century were paralleled by an increase in the availability of cod.⁵⁸ Clearly we must be wary of drawing conclusions but perhaps it is safe to assume that while the ecology of the sea provided a framework for the exploitation of its resources, it was people's preferences that primarily determined the species and quantities of fish that were netted and consumed. Furthermore, there is no reason to believe that over fishing caused fluctuations in the availability of fish.

The importance of the sea

While it is true that before c. 1000 the Vikings possessed great expertise in sailing, it was in the High Middle Ages that settlements in coastal areas increased, the construction of dikes began in the marshland, and the use of water transport boomed as never before. Undeniably the sea offered better opportunities for transportation than the roads, and the geography of medieval Denmark can best be seen as divided into a number of marine transport zones for local and foreign traffic, such as the Wadden Sea in the west or the Baltic Sea.⁵⁹ Each of these regions was crossed by larger ships and thousands of smaller vessels. Indeed, it can be demonstrated that each transport region developed the specific type of vessel best-suited to its local waters. Such vessels were owned by wealthy noblemen or peasants alike. The increasing importance of the sea is mirrored in the location of more and more towns close to the shoreline. Access to the sea became virtually a precondition for survival in terms of commercial competition. The sea also provided some of the food supplies vital to both urban dwellers and country folk. Fish in great quantities, especially herring, formed the basis of the single most important commodity exported from Denmark in the Middle Ages. The Danish community was reliant on the sea to a degree far exceeding that of many contemporary societies.

⁵⁸ Poul Holm, "Catches and Manpower in the Danish Fisheries, c. 1200–1995", in *The North Atlantic Fisheries, 1100–1976. National Perspectives on a Common Resource*, eds. Poul Holm, David J. Starkey and Jón Thór, (Studia Atlantica, 1) (Esbjerg, 1996), pp. 177–206; Poul Holm, "Fiskeriets økonomiske betydning i Danmark, 1350–1650", *Sjæk'len*, 1998 (Esbjerg, 1998), 9–42.

⁵⁹ On land transport see chapter on "Commodity Trade".

CLIMATE

Denmark has a mild insular climate with few great variations in temperature between summer and winter. In the early twentieth century the mean temperature was 7–8° C, and the difference between average summer and winter temperatures was about 17° C. The rainfall is more or less evenly distributed throughout the year, with most of the heavier rain falling during the summer and autumn. The prevailing winds are westerly, but with an easterly wind almost as common in the spring.¹ In the Middle Ages the climate was little different, but its influence on societal life was greater than the impact the climate has on life today. The weather could be felt more directly, because most people were engaged out of doors for the better part of the year, and because shelter from the sun, wind, and rain was generally inadequate. Clothing, dwellings, and heating were frequently scanty and left people vulnerable to the elements. The technical and technological level of production and commodity exchange could not sustain substantial climatic swings before serious difficulties were felt. Good weather was an inestimable resource, poor weather an unrelenting opponent, bringing crop failure, starvation, disease, and death.

The climate is an important factor in the development of society, but it is very difficult to assess its impact before the nineteenth century, when reliable meteorological information based on systematic observations and measurements was first obtained.² In northern Europe written sources soon thin out as we move back through the centuries, but a number of observations on the climate have nevertheless come down to us. Indeed it has been said of the Danish chronicles that they are only

¹ *Salmonsens Konversations Leksikon*, ed. Christian Blanstrop, vol. 5 (Copenhagen, 1916), p. 542.

² From 1 June 1860 onwards, on the initiative of Det Kongelige Danske Landhusholdningsselskab, regular and reliable meteorological observations were made at a number of weather stations distributed throughout the country. Before this date there exists only a small amount of scattered information about the climate. Barring Tycho Brahe's meteorological diary, which he kept on the island of Hven in the years 1582 to 1597, Thomas Bartholin the Elder's daily observations in Copenhagen from 1671 and Ziegenbalg's observations from 1745 to 1748, daily meteorological records in Denmark exist only from 1751 and are unreliable at that. Axel Holck, *Dansk Statistiks Historie 1800–1850* (Copenhagen, 1901), pp. 132–135.

concerned with four topics: dates, kings, wars, and bad weather.³ This is not completely untrue and information about the weather certainly exists in the surviving annals and chronicles, but references are indeed few, scattered, uncertain, and sometimes difficult to interpret. For this reason it is justifiable to combine information drawn from Denmark with sources available from abroad: without this methodological sleight of hand it is impossible to form an impression of the climatic conditions prevailing in medieval Denmark, and even then such conjecture is difficult. A number of climatological methods have evolved, however, which help to offset this dearth of information.

Paleoclimatic research and the Medieval Warm Period

The paleoclimatic evolution can be indicated through a line of so-called proxy data, i.e. data that are the result of physical and biophysical methods combined with historical documentary evidence about the weather as far back in time as such historical observations are available. By far the largest part of the prehistory of meteorology has to be studied through dendrochronological data, corals, ice cores, mountains, glaciers, moraines, lake and ocean sediments, borehole measurements in the ground, etc. The quality of these physical and biophysical methods is disputed by some. Correlations with instrumental physical/biophysical based proxies in the period since 1881 indicate that reconstructions based on coral and ice core are poorer than dendrochronological and historical ones.⁴ Nonetheless, there is a consensus among scientists that combined proxy data can provide an insight into paleoclimatic changes.

The term *Medieval Warm Period* has been used to describe a past climatic epoch in Europe and neighbouring regions that lasted from approximately the eleventh to the fourteenth centuries. At present only a small number of scientists reject the likelihood that mean temperatures were higher in the Middle Ages than in the preceding centuries

³ Erik Kjersgaard, "Borgerkrig og Kalmarunion 1241–1448", *Politikens Danmarks Historie*, vol. 4, ed. John Danstrup and Hal Koch (1963; repr. Copenhagen, 1970), p. 288.

⁴ P. D. Jones et al., "High-resolution palaeoclimatic records for the last millennium: interpretation, integration and comparison with General Circulation Model control-run temperatures", *The Holocene* 8, no. 4 (1998), 477–483.

before 1000, and in particular after 1400, when the falling temperatures of the so-called *Little Ice Age* culminated in the seventeenth century.⁵ However, scientists have become more cautious in their evaluation of this phenomenon. In their 1995 report, the United Nation's climate panel IPCC WGI concluded that the two periods commonly known as the *Medieval Warm Period* and the *Little Ice Age* were more complex geographically than had been assumed hitherto.⁶ Nevertheless, some researchers hold to the traditional image of climatic changes over the past millennium, while admitting that certainty is virtually impossible. In accordance with the latest international research, it is more or less acknowledged by most that while the *Little Ice Age* was perhaps a global phenomenon it is doubtful that *Medieval Warmth* was experienced on a similar scale.⁷ Cold and warm periods vary geographically across the globe. The current evidence does not support globally synchronous periods of anomalous cold or warmth over this time frame, and the conventional terms *Little Ice Age* and *Medieval Warm Period* appear to have limited utility in describing trends in hemispheric or global mean temperature changes in past centuries.

The *Medieval Warm Period* appears to have been restricted to areas in and neighbouring the north Atlantic, areas that include Greenland, the North Pole, and Europe. The rise in temperature was moderate: the most recent estimates suggest that the difference in average temperatures in the northern hemisphere between the *Medieval Warm Period*, lasting from the eleventh to the fourteenth centuries, and the *Little Ice Age*, lasting from the fifteenth to the nineteenth centuries, was only 0.2° C.⁸ Furthermore, temperatures during the *Medieval Warm Period* were lower than those of the twentieth century except during three relatively short periods: 1010–1040, 1070–1105, and 1150–1190. Thus, in a long historical perspective climatic development can be described as a modest

⁵ Recently the concept of *Medieval Warmth* has been rejected by A. E. J. Ogilvie and G. Farmer, "Documenting the medieval climate", in *Climates of the British Isles. Present, past and future*, eds. M. Hulme and E. Barrow (London, 1997), pp. 112–133.

⁶ *Climate Change 1995—Economic and Social Dimensions of Climate Change*, eds. J. Bruce et al. (Cambridge, 1996), p. 179.

⁷ Glaciologist Dorte Dahl-Jensen interviewed in *Weekendavisen*, 20–26 April 2001 (Copenhagen, 2001), p. 9.

⁸ Jones et al., "High-resolution," pp. 477–483; Mann et al., "Northern Hemisphere Temperatures During the Past Millennium: Inferences, Uncertainties, and Limitations", *Geophysical Research Letters* 26, no. 6 (1999), 759–762; T. J. Crowley and T. Lowery, "How warm was the Medieval Warm Period? A comment on Man-made versus Natural Climate Change", *Ambio* 29, no. 1 (2000), 51–55.

and irregular cooling from 1000 to the second half of the nineteenth century, at which point temperatures rose to the present level.⁹

It is believed that before 1850, swings in temperatures were mainly caused by solar radiation and volcanic activities.¹⁰ However, global cooling between 1000 and the twentieth century was perhaps also caused partly by human impact on the climate. As we saw in the chapter on arable land Europe was deforested and arable cultivation expanded in the Middle Ages. Seen from the air, woods appear much darker, and absorb the sunlight far more than fields of grain, which reflect the sunlight back into the universe by means of their light colours. This medieval phenomenon might well have contributed therefore to the gradual cooling of Europe.¹¹

Isotopic data from the core of the Greenland ice cap suggest that the naming of Iceland in the ninth century took place at the end of a cold period, and that Eric the Red arrived at the land he called Greenland at the beginning of a warm period which lasted to about 1400, when the settlement of Vesterbygd in the Bay of Godthåb died out. These data do not suggest that the warm period was uninterrupted. In western Greenland it was exceptionally warm around 1000, after which the temperature cooled gradually over the next 200 years. At that point the temperature rose again briefly, falling from the middle of the thirteenth century until the second half of the fourteenth century, when a new warm period began. This culminated shortly after 1400, but at a lower level than had been reached around 1000.¹²

Nor was the *Medieval Warm Period* in Europe continuous.¹³ Estimates of winter temperatures in the Netherlands, Luxemburg, eastern France, western Germany, Switzerland, and northern Italy during the period 750 to 1300 indicate considerable fluctuations. Very cold winters were less frequent between 900 and 1300 than in the periods 1300 to 1900

⁹ Jones et al., "High-resolution", pp. 477–483; Mann et al., "Northern Hemisphere", pp. 759–762; Crowley and Lowery, "How warm", pp. 51–55.

¹⁰ T. J. Crowley, "Causes of Climate Change over past 1000 years", *Science* 289 (2000), 270–277.

¹¹ This hypothesis has been advanced by Lawrence Livermore National Laboratory, University of California: <http://www.eurekalert.org/releases/lnl-rpp042301.html>.

¹² Naja Mikkelsen, "Grønlands klimahistorie geologisk set", in *Inuit, kultur og samfund—en grundbog i eskimologi*, ed. J. Lorentzen et al. (1999), pp. 152–163.

¹³ H. H. Lamb, "The early Medieval warm epoch and its sequel", *Palaeogeography, Palaeoclimatology, Palaeoecology* 1 (1965), 13–37; H. H. Lamb, *Climate: present, past and future, Climatic history and future*, vol. 2 (London, 1977).

and 1901 to 1960. On the other hand these estimates clearly show that winter temperatures in the Middle Ages were far from homogeneous. Winters during 1090 to 1179 were just as cold as those of the *Little Ice Age*. But then again winter temperatures from 1180 to 1209 were higher than those of 1901 to 1960. The period 1180 to 1299 is comparable with the twentieth century until 1960. The rare occurrence of hard winters in western and central Europe in the thirteenth century seems to have promoted the cultivation of subtropical trees, such as figs and olives, in the Po valley and even in the Rhine valley. The distribution of these plants shifted southwards after 1300, when winters became colder. In the following decades, which reputedly mark the beginning of the *Little Ice Age*, the mean winter temperature was one degree below that of the thirteenth century. On the basis of estimates of the winter temperatures in west and central Europe the transition from the *Medieval Warm Period* to the *Little Ice Age* seems to have been quite sudden, while in England and Iceland it was more gradual.¹⁴ There were thus local variations. In northern Scandinavia summer temperatures were only relatively high in the eleventh and early twelfth centuries.¹⁵

The first centuries of the second millennium were probably relatively warm in the northern hemisphere. It is less probable that the *Medieval Warm Period* was global and comparable with the warm period experienced in the twentieth and twenty-first centuries. The *Medieval Warm Period* seems to have been confined to the region surrounding the north Atlantic, but the chronology of the warm period was not the same throughout this great area. The duration of the *Medieval Warm Period* also varied from place to place. As noted above, temperatures in western Greenland were unusually high around 1000 and to a lesser degree around 1400. In west and central Europe the thirteenth century was the warm period proper. In northern Scandinavia this came earlier and lasted from the eleventh century to the beginning of the twelfth. On the Continent the warm period ended in the first half of the fourteenth century. In England and Iceland the warm period, according to the winter temperatures, lasted somewhat longer. Around 1400 the fall in temperatures had hit all parts of Europe.

¹⁴ Lamb, "Climate: Present"; C. Pfister et al., "Winter severity in Europe: the fourteenth century", *Climatic Change* 34 (1996), 91–108; Ogilvie and Farmer, "Documenting", pp. 112–133; C. Pfister et al., "Winter air temperatures in the Middle Ages (A.D. 750–1300)", *The Holocene* 8, no. 5 (1998), 535–552.

¹⁵ Crowley and Lowery, "How warm was," pp. 51–55.

It has already been noted that certain subtropical plants were grown as far north as the Rhine valley during warm periods. Similarly, grain production stopped in Iceland and descended the mountain slopes of the Alps when the warm period faded around 1400. While noting these factors, we must also ask whether the *Medieval Warm Period* had much impact on society. The most recent estimates of medieval temperatures suggest not. A 0.2° C rise in the average temperature can hardly have made much difference except in marginal regions such as Iceland and the Alps. The comparatively high summer temperatures in northern Scandinavia during the eleventh and twelfth centuries had little noticeable impact on societal development in Denmark. Years that saw relatively short-term, severe, and geographically wide-ranging climatic anomalies were more important, causing famine, epidemics, and demographic loss.

The turning point?

A study of medieval grain yields compared to the development of prices reveals that the margin between a normal harvest and scarcity was very narrow because of the small grain yields involved. Unfortunately it is not possible to study either the grain yields or the relation between yields and prices on the basis of Danish sources, but British research into yields in Winchester during the thirteenth century suggests that the average yield of wheat on these estates was 3.8 grains harvested for each grain sown.¹⁶ If yields dropped to below 3.25–3.5, prices normally rose. From the mid-thirteenth century to 1350 wheat prices rose to more than 10 per cent above the mean price level in the period 1330/1–1346/7 on 41 occasions.¹⁷

Bad harvests were caused by too much rain, drought, or a long hard winter. These climatic circumstances did not always give rise to famine, of course, which could be caused by circumstances other than bad weather. Famine was a recurring phenomenon in the Middle Ages and could be triggered by floods, wars, and commercial sanctions, such as

¹⁶ J. Z. Titow, *Winchester Yields. A Study in Medieval Agricultural Productivity* (Cambridge, 1972), Table 1, p. 4.

¹⁷ This estimate is based on Table A in D. L. Farmer, "Prices and Wages", chapter 7, in *The Agrarian History of England and Wales*, ed. H. E. Hallam, vol. 2 (Cambridge, 1988), pp. 790–791.

blockades etc., although it is true that most food shortages were caused by unfavourable weather.

Medieval chronicles and annals report countless famine years caused by bad weather. The gravest situations arose, of course, when the climate was unfavourable in successive years, in most cases two or three years running. However, few references to two- or three-year famines can be found in the historical sources. On the other hand we quite often read of famines lasting for extended periods, sometimes as long as twelve or thirteen years. This information should be treated with caution: in most cases it is easy enough to disprove. Then as now exaggeration to stress a point was common. In Christian Europe any prolonged shortage might be described as seven lean years, i.e. seven years of famine.

To generate serious human and demographic consequences a famine had not only to continue for two or three years in succession but also to cover a large geographical area. The extent of the medieval trade in victuals should not be overestimated, but trade in grain and other foodstuffs was quite developed and in a critical situation relief could be found in imports from places not affected by unfavourable weather. Shortage in one location triggered instant trading activities if these were not stopped by bans on exports. A local food shortage could very well be ameliorated by the import of grain and other provisions.¹⁸

All the medieval famines that generated serious demographic consequences were caused by bad weather two or three years in succession across a substantial geographical area. The second decade of the fourteenth century was extraordinary in this respect. In these years most of northern Europe was ravaged by famine several times, because between 1310 and the early 1320s mainland Europe and surrounding islands were marked by unusually bad weather. The famine of 1315–17 was the most significant. It struck most of Europe north of the Alps and the Pyrenees. We are here confronted with the best documented famine in medieval Europe and it was caused by extreme rainfall.

Several English chroniclers report heavy rain in 1314 and particularly in 1315, and there are accounts of floods, dikes washed away, and crops destroyed in various parts of England.¹⁹ The result was that

¹⁸ Campbell et al., *A Medieval Capital*; Nils Hybel, "The grain trade in Northern Europe before 1350", *The Economic History Review* 55, no. 2 (2002), 219–247; Nils Hybel, "The Foreign Grain Trade in England 1250–1350", in *Cogs, Cargoes, and Commerce*, eds. Lars Berggren et al., pp. 212–241.

¹⁹ C. C. Britton, *A Meteorological Chronology to A.D. 1450*, Meteorological Office Geophysical Memoirs, no. 70 (London, 1937), pp. 132–133; Vita Edwardi Secundi,

grain yields fell and grain prices rose. On the Winchester estates the bailiffs report continuous rain and floods from the summer of 1314 to the autumn of 1316, and grain yields fell markedly in 1315 and 1316. Estimates of the fluctuation of grain prices show that in 1315/15 and 1316/17 prices trebled, suggesting that this was the worst period of crop failure in the thirteenth and fourteenth centuries.²⁰ Accounts from France and, in particular, the Netherlands show that the western parts of Europe north of the Pyrenees were similarly afflicted by rain and cold from May to August 1315, and the consequences of this, i.e. crop failure and rising prices, were widespread. From Germany there are reports of famine in Westphalia, the Rhineland, Alsace, Bavaria, Thüringen, Bohemia, Austria, and the Baltic region.²¹ The Lübeck chronicler Detmar describes severe famine in Estonia and Livonia in 1315 and 1317. The *Canonici Sambiensis Annales* report storm and rain in 1316 and famine in 1317.²²

A few years earlier, around 1310, the supply of provisions had also been critical, but not as disastrously as in 1315–17. The climate in northern Europe seems to have been unusually dry about 1310. The grain yield on the Winchester estates in England dropped some 16 per cent in 1310 and the bailiffs report dry weather in 1309 and 1310.²³ The English grain prices reflect this situation quite clearly, with prices in 1309/10–1310/11 40–60 per cent above the average level for the period 1330/1–1346/7. Complaints about the high prices of grain and victuals in 1311 led to price control and suspension of the poundage on the import and export of goods to England by foreign merchants.²⁴

English Historical Documents 1189–1327, vol. 3, ed. Harry Rothwell (London, 1975), p. 282; *Calendar of Patent Rolls*, Edward II, 1313–1317 (London, 1894); *Calendar of Close Rolls*, Edward II, 1313–1318 (London 1892–1898).

²⁰ Titow, *Winchester Yields*, Appendix C, p. 49 and Figure N, p. 147; J. Z. Titow, “Evidence of Weather in the Account Rolls of the Bishopric of Winchester, 1209–1350”, *The Economic History Review*, ser. 2, vol. 12 (1960), 360–407; Table A, Farmer, “Prices and Wages,” pp. 790–791.

²¹ Fritz Curschmann, *Hungersnöte im Mittelalter. Ein Beitrag zur Deutschen Wirtschaftsgeschichte des 8. bis 13. Jahrhunderts* (Leipzig, 1900), pp. 208 ff.; Henry S. Lucas, “The Great European Famine in 1315, 1316 and 1317”, *Speculum* 5 (1930), 343–377; William Chester Jordan, *The Great Famine, Northern Europe in the Early Fourteenth Century*, Princeton (New Jersey, 1996).

²² *Kronik der Franciscaner Lesemeister Detmar*, ed. F. H. Grautoff (Hamburg, 1829), pp. 294–205, 209; *Canonici Sambiensis Annales*, *Monumenta Germaniae Historica, Scriptores*, vol. 19, ed. G. H. Pertz (Hanover, 1866), p. 706.

²³ Titow, “Evidence of Weather”, pp. 360–407; Titow, *Winchester Yields*.

²⁴ *Eng. Hist. Doc.*, vol. 3, p. 529; Table A, Farmer (1988), pp. 790–791.

Detmar of Lübeck notes the high prices in England and Flanders in 1310, and is concerned that these will spread to the German towns on the southern coast of the Baltic Sea.²⁵ The high prices in Flanders are confirmed by a reported scarcity of grain and wine due to an unusually cold winter in 1309. From this year there are also reports of famine and epidemics in Hesse.²⁶

Northern Europe was apparently marked by extreme weather conditions at least three times in the first twenty years of the fourteenth century, with drought in the years around 1310 and heavy rainfall from 1314–15 and again a couple of years later. In Denmark the weather was probably also unusual.²⁷ On the basis of Danish sources alone it is difficult to say whether there were years of bad weather and crop failure in Denmark between 1310 and 1319, and it is also impossible to say whether famine ravaged the country. Only the briefest of references in the annals allude to such matters.

Those Danish annals that do touch upon climate, food supplies, prices, and so on, display two traditions. On the one side stands the *Chronica Sialandie*, the Danish translation of the *Annales Ryenses* and *Annales Ripenses*. These annals agree that in 1311 drought, crop failure, and high prices prevailed, but mention no other climatic abnormalities for the rest of the decade. On the other side are the *Annales Scanici*, beginning in 1316, which report high prices in 1319, for which year the *Annales Essenbecenses* records famine. For good reasons only the latter notes the situation in 1315: in that year the annals comment laconically on daily rainfall. The two annals do not, however, comment on unfavourable weather at the beginning of the decade. On the basis of this scanty information, the hypothesis that Denmark was afflicted by bad weather and crop failure at least twice in the second decade of the fourteenth century can be advanced.

²⁵ Detmar, p. 194.

²⁶ Curschmann, *Hungersnöte*, p. 206.

²⁷ Historians have not been aware, or have not substantiated the point, that Denmark was hit by the great European famine in 1315–1317. In his classic work published in 1930 Henry S. Lucas wrote that there was no information from Scandinavia except concerning *pestilensia* in Sweden in the year 1316. On the other hand Fritz Curschman, writing his *Hungersnöte im Mittelalter* in 1900, was convinced that Denmark suffered but he does not document this statement. William Jordan's *The Great European Famine, Northern Europe in the Early Fourteenth Century* (1996) adds little enlightenment, although it claims to cover Scandinavia, nor does it mention that the great famine affected Denmark.

It is difficult to say why we have to piece together this hypothesis from two such divergent sources. It is disturbing to have two traditions, the more so because they generally agree about other remarkable climatic situations, for example the great frost in 1323 and the famine in 1283. *Chronica Sialandie* and *Annales Essenbecenses* are deeply concerned about the weather, crop failures, and famines: the latter in particular provides a great deal of such information. It is therefore strange that it is precisely these annals that overlook the drought in 1311. It is perhaps even more remarkable than the neglect to mention plenteous rainfall in the middle of the decade by the *Chronica Sialandia*, because this source in general is less informative about the climate than *Annales Essenbecenses*. It is harder to understand why the Danish annals disagree about the period 1310 to 1320 than it is to confirm the image they give in the aggregate of a decade marked by extraordinary climatic conditions.

There are no traces of abnormal weather, famine, epidemics, or rising mortality in any Danish letter or other document existing from the years 1310–1321. This absence is not to be wondered at, however: neither is there much information in letters and official documents about even such dramatic events as the plagues of the second part of the fourteenth century. Only in one document, a statute from 1354, is the demographic consequence of the Black Death touched upon.²⁸ On the other hand there is, as we have seen, plenty of evidence from other parts of Europe which confirms the sparse information in Danish annals about the years of unusual weather in the second decade of the fourteenth century, evidence that fits Denmark into the general European pattern. Furthermore, it is hardly credible that Denmark twice escaped bad weather hitting most of Europe, a point that applies particularly to the rainy seasons in 1314–1315.²⁹

These years are usually considered to pinpoint the most severe climatic crises in the Middle Ages, and have also been seen as the turning point between the *Medieval Warm Period* and the *Little Ice Age*. This is not true. The relatively warm Scandinavian summers finished some time in the twelfth century, while in England and Iceland falling temperatures are not detectable before around 1400. In addition the years 1314–1315 did not experience the only serious climatic crisis in

²⁸ See chapter on “Population”.

²⁹ Nils Hybel, “Klima, misvækst og hungersnød i Danmark 1311–1319”, *HT* 97 (1997), 29–40.

the Middle Ages. If we compare information about the weather in chronicles and annals from countries west, south, and south-east of Denmark, climatic abnormalities with serious societal consequences can be detected throughout the period 1000 to 1320, albeit not all equally grave or equally recurrent. While this information is at times barely coherent, the numerous sources when pieced together present a relatively clear pattern. When enough sources from diverse localities provide almost identical information they must be considered reliable. A chronology of climatic extremes giving rise to famine can then be constructed for northern Europe excluding Scandinavia. In the following pages this construction will be compared with data from Danish chronicles and annals in order to produce an image of climatic development in Denmark and its impact on medieval society.

The High Middle Ages

First we shall consider winter weather. Except for the year 1076–77 there are no references to winters with particularly hard frosts and long periods of snowfall in any north European sources surviving from the eleventh century. During the following century, however, there are two such episodes. Accounts of these can be traced in most of northern Europe, but not in the Danish sources. The first such abnormally severe winter occurred in 1114–15, and was perhaps immediately followed by another hard winter. The second was reported in three successive years: 1124, 1125, and 1126. In the thirteenth century northern Europe was similarly hit by unusually hard winters in 1204–05 and 1233–34.³⁰ Only the harsh climatic conditions marking the winters of 1124–26 seem to have disturbed societal life seriously, but one severe winter alone rarely led to crop failure. The weather from spring and summer until after the harvest was far more decisive, and, as we shall see, the weather in the spring of 1124 and the summer of 1125 was bad.

Information about the weather obtained from chronicles or annals can be direct or implied. Normally famines are linked with references to crop failure or other causes, but apparently the writers did not always consider it necessary to mention a reason. It was evident that famine arose in most cases from crop failure and that this problem in turn was

³⁰ Britton, *A Meteorological*, pp. 53–55, 79, 70; Pfister et al., “Winter air”, pp. 535–552.

due to cold weather, hail, rain, floods or, conversely, heatwaves and drought. On the other hand, references to abnormal climatic circumstances are often linked to an eclipse of the sun or the moon, or to the appearance of comets in the firmament. In Frankish-German territories the chroniclers associate famines with the appearance of comets no fewer than ten times: in 868, 909, 940–41, 1005, 1031, 1145, 1197, 1264, 1297, and 1316. For our purposes this link is not important: what does matter is that behind simultaneous accounts from various parts of northern Europe lies a great deal of indirect information concerning cold and wet or conversely very hot and dry seasons of cultivation.

The first widespread and long-lasting famine recorded in the eleventh century as having been caused by bad weather was in 1005–06. There are references to it from Cologne, Swabia, Lower Saxony, France, England, and the Netherlands. The next serious famine hit the whole of western Germany, France, and Belgium in 1043–45. English chronicles describe a great snowfall during the harvest of 1043, bad weather and floods in November 1044, and summer rain, harvest snow, and a consistently wet November in 1045. There are no Danish written sources from this period. It was more than half a century before unusual climate was again recorded as causing serious problems in northern Europe.

At the turn of the century there are reports of hard winters and harvests in Alsace, Lothringen, Swabia, Magdeburg, the mid-Rhine area, Augsburg, Switzerland, Burgundy, and south-western France. From England we hear of storms and floods in 1099 and of a hard winter in 1100–01.³¹ It is about that time that Danish sources also provide information about a famine. Ælnoth of Canterbury claimed that he had been in Denmark for about 24 years when, sometime in the first quarter of the twelfth century, he dedicated his hagiography of St Cnut (1080–86) to King Nils (1104–34). He recounts that after Cnut was murdered his brother Oluf was crowned. In Oluf's reign hunger and plague, disease and fear of enemies haunted Denmark. Oluf was even given the nickname Hunger. This image of Oluf's reign was further developed in the *Chronicon Roskildense*, which dates from the 1130s. The chronicler claims that during this time a terrible famine prevailed in Denmark for nine years. Shortly before 1200, in a concise history of the Danish kings written by Sven Aggesøn, we read that the famine

³¹ Curschmann, *Hungersnöte*, pp. 108, 116–118, 127–128; Britton, *A Meteorological*, pp. 42, 50–51.

lasted seven years. About the same time Saxo depicted a corresponding, but far more detailed, image of Oluf's ten terrible years on the throne.³² According to tradition Oluf's reign lasted from 1086 to 18 August 1095.³³ Local famines resulting from great storms are reported in England in 1087, in Belgium in 1090 and 1095, in Saxony in 1092 and 1093, and in Hesse in 1094, but no pan-European crisis arising from famine is detectable in these years.³⁴

If there was a famine in Denmark during Oluf's reign it must have been a local phenomenon. In his hagiography Ælnoth continues that once Oluf's successor, Erik, came to power the famine ended and a period of prosperity began, and this view is repeated and elaborated upon by the *Chronicon Roskildense* and by the later chroniclers Saxo and Aggesen. During this time of reputed abundance under King Erik (1095–1104) it is extraordinary that a wide-ranging famine caused by unfavourable climatic conditions was recorded in many other parts of northern Europe. Either the dating of Erik's succession to the throne is wrong, or the tradition beginning with Cnut's hagiography has used retrospective accounts of famine in Denmark dating from the turn of the century and attributed them to Oluf's reign. The latter is not impossible. Ælnoth, employing plenteous quotations from the Bible, used the alleged climatic disturbances during Oluf's reign to demonstrate divine punishment of a rebellious people against a rightful king, i.e. Cnut. Of course this image could well have been produced by Ælnoth without the inspiration of any actual weather conditions. On the other hand, if the dating of Oluf's reign in *Chronicon Roskildense* is accepted, the north European famine arose during his last years as ruler. According to the chronicle, Cnut was murdered in 1090, and it claims that Oluf was on the throne for ten years. If that is right, Oluf died in the middle of the north European famine 1099–1101. It is impossible to decide

³² "Ælnothi Monachi Historia ortus, vitæ, & passionis S. Canuti Regis Daniae", chapter 32, *Scriptores Rerum Danicarum mediæ ævi*, vol. 3, ed. Jacobus Langebek, (1772–1878; repr. Nendeln, 1969), pp. 376–381; "De martyrizatione S. Kanuti Regis", *ibid.*, p. 324; *SM*, vol. 1, p. 24; Sven Aggesen, "Brevis historiae regum Dacie", *ibid.*, p. 128; Saxo, book 12, chap. 1.2–4.

³³ *Libri Memoriales Capituli Lundensis. Lunde Domkapitels Gavebøger*, ed. C. Weeke, (1884–1889; repr. Copenhagen, 1973), p. 205; "Passio Sancti Kanuti Regis and Martyris", *SRD*, 3, p. 321; Ælnothi, chap. 32, *ibid.*, pp. 376–381; Skovgaard-Petersen, Inge, Aksel E. Christensen and Helge Paludan, *Danmarks historie*, vol. 1 (Copenhagen, 1977), p. 258; Ole Fenger, *Gyldendal og Politikens Danmarks historie*, vol. 4 (Copenhagen, 1989), p. 69.

³⁴ *The Anglo-Saxon Chronicle*, ed. Dorothy Whitelock (New Brunswick, 1961), p. 162; Curschmann, *Hungersnöte*.

which explanation is right, although the former is more likely. At any rate it seems very plausible that Denmark, like her neighbours, was hit by bad weather and famine at the turn of the eleventh century. The consequence of such a calamity for Danish resources, regardless of its causes and dating, is vividly depicted by Ælnoth. He writes that the fields became barren, the meadows were poor in grass, the woods produced scanty pannage, water and streams yielded only few fish, disease destroyed the cattle, men were weakened by illness, hunger pressed hard, the aristocratic and rich became weaker, and those already vulnerable perished.³⁵

Only 20 years later, similar catastrophes ravaged Europe. From the years 1124–1126 we read of hard, snowy winters, an ice-bound Rhine, pauper children freezing to death, domestic animals perishing, miserable harvests, famine hitting the Netherlands, Germany, Bohemia, and the northern and central parts of France.³⁶ English chroniclers, like Simeon of Durham, describe the failure of crops and subsequent famine in 1124. The Anglo-Saxon Chronicle gives an account of great floods in August 1125, grain and meadows destroyed, famine, and diseased cattle. According to this chronicle it was the worst season for many years.³⁷ The *Annales Colbazenses* confirm this information and also note a grave famine in England in 1125. In contrast this first Danish annal says nothing about the situation in Denmark,³⁸ nor do any other Danish sources.

They are also silent about the next widespread European famine which occurred in 1143–47. Denmark, of course, might well have avoided this, even though it was a wide-ranging phenomenon. The chroniclers report that hard winters, heavy rainfall, storms, bad harvests, and famine swept across the Netherlands, France, Germany, and England. The population of Europe apparently had little time to recover. Only two years later a hard winter in 1149–50 caused crop failure and famine in various places, for example, Austria; in the following years the problems spread throughout Germany and large parts of the Netherlands. In 1151 the English *Waverley Annals* report a serious famine and crops destroyed by heavy rainfall. Neither of these famines is mentioned in the Danish sources.

³⁵ Ælnothi, chap. 30.

³⁶ Curschmann, *Hungersnöte*, pp. 132–136.

³⁷ Britton, *A Meteorological*, p. 57.

³⁸ *DMA*, p. 9.

After these hard years, 1145 to 1151, almost half a century went by before the next disastrous famine befell Europe. In 1193, accounts from England record bad weather, heavy rain, and shortage of grain. In Germany and Austria the situation became critical in 1194. The wet summer of 1195 caused problems in Germany and Austria, as well as England: heavy rain and crops destroyed were everyday occurrences, and the rain continued to fall. In 1196 famine is noted in English, Belgian, German, and Austrian annals. By the following year the crisis was apparently over in England but was intensified on the Continent. In 1197 the Netherlands, eastern France, west and south Germany were marked by rain, crop failure, and famine, and the crisis did not abate until 1198.³⁹ For that year the *Annales Essenbecenses* describe a tremor or perhaps even an earthquake in Denmark. The incident is confirmed by *Annales Lundenses* and *Annales Ryenses*. It is possible that these Danish annals are referring, in fact, to bad weather, and that Denmark, too, was overtaken by the great European crisis caused by adverse climatic conditions in the late 1190s. The Lübeck chronicler Detmar claims that villages were flooded and that famine prevailed in 1196. This information suggests that the bad weather at least came close to Denmark.⁴⁰

In the thirteenth century only one great famine caused by bad weather and affecting Denmark can be traced in the sources. It swept northern Europe in the years 1224–1226. Several German chronicles report violent storms destroying crops in 1224. These storms, together with cattle plague and a cold winter in 1224–1225, paved the way for famine in the next two years: the Netherlands, eastern France, and most of Germany were affected.⁴¹ The same problems can be traced in Denmark and England too. In December 1224 the king of England, Henry III, granted permission for the export of grain to Denmark, among other countries.⁴² It is little wonder that a dispensation was required from a ban on exports. On the estates belonging to Winchester Cathedral the harvest was, at best, poor that year. And, as in other parts of Europe, several English sources describe unusual climatic conditions, bad harvests, and famine. As early as 1223 we have accounts of a wet year in England, with low yields and the late ripening of grain. A dry winter

³⁹ Curschmann, *Hungersnöte*, pp. 139–146, 156–161; Britton *A Meteorological*, pp. 62, 73–74.

⁴⁰ *DMA*, pp. 60, 168, 278; *Detmar*, p. 75.

⁴¹ Curschmann, *Hungersnöte*, pp. 169–172.

⁴² *DD*, 1.6, no. 28.

prevented sowing in 1224 and caused severe food shortages, according to the *Waverley Annals*. In 1225 the summer was cold and marked by bad weather and a poor harvest. Judged by the English grain prices the situation was far from hopeless, however. This probably explains Henry III's permission to export grain to Denmark, where the situation was unfavourable. Of the Danish annals, only the *Annales Essenbecenses* offer a relevant comment: *erra vastata est*. The sentence makes no sense unless *erra* is assumed to be *terra*, in which case we are informed that the land was deserted, perhaps as a result of crop failure.⁴³

The famine of 1224–1226 was the last widespread and long-lasting shortage in northern Europe until miserable weather in the second decade of the fourteenth century caused crop failure and hardship once again. This does not mean that there were no climatic swings or famines in the intervening period, merely that these were local episodes confined to a single season. The year 1283 provides an example: the *Chronica Sialandie* speaks of famine in Denmark, and the *Annales Essenbecenses* even describe this as severe famine. In England the crops on the Winchester estate failed because of drought, but no reports of famine can be found, nor is there any reference to famine on the Continent in 1283. On the other hand famines ravaged Bohemia in 1280, 1281, and 1282, but no other parts of Europe appear to have been affected.⁴⁴ In 1338, according to the Eiderstedt Chronicle, God sent heavy rain that caused famine and high prices, and allegedly this rain continued for three years. The latter information is not confirmed by Danish sources, but in parts of Britain 1338 certainly seems to have been a very wet year: however, there are no reports of high prices and famine in England and Ireland, nor indeed in the subsequent years.⁴⁵

Bad weather and famine in northern Europe 1000–1500⁴⁶

11th century	1005–06; 1043–45
12th century	1099–1101; 1124–26; 1144–47; 1149–51; 1195–98
13th century	1224–1226
14th century	1315–17
15th century	none

⁴³ Britton, *A Meteorological*, pp. 86–87; Titow, “Evidence”, pp. 366, 403; *DMA*, p. 279; Table A, Farmer, “Prices and Wages”, pp. 790–791.

⁴⁴ Curschmann, *Hungersnöte*; Titow, “Evidence”, p. 376; *DMA*, pp. 115, 281.

⁴⁵ *Chronicon Eiderstadense vulgare oder die gemeine eiderstedtische Chronik 1103–1547*, ed. Johannes Jasper (1923; repr. St. Peter-Ording, 1977), p. 25; Britton, *A Meteorological*, pp. 138–140.

⁴⁶ Nils Hybel, “Klima og hungersnød i middelalderen”, *HT* 102 (2002), 265–281.

From 1000 to 1300 eight periods of bad weather lasting two or more successive years blighted northern Europe. These episodes apparently caused such extensive human and societal misery that we may be justified in terming them catastrophes. These strong and sudden changes of climate occurred in the years 1005–1006, 1043–1045, 1099–1101, 1124–1126, 1144–1147, 1149–1151, 1195–1198, and 1225–1226. They are unevenly distributed over the three centuries, with two in the eleventh century, five in the twelfth, and one in the thirteenth century. On this basis it can be concluded that during the High Middle Ages the weather had the most negative impact on society in the twelfth century. Danish sources indicate that Denmark was hit by three of these episodes of sudden, unfavourable climate change, namely in 1099–1101, 1196–1198, and 1225–26. In addition Danish sources note drought around 1310 and heavy rainfall in 1315–1317. For this reason, and because the five other episodes occurring in 1005–1006, 1043–1045, 1124–1126, 1144–1147, and 1149–1151 hit the whole of northern Europe, and furthermore because Danish sources for the eleventh and the twelfth centuries are sparse and vague, it is possible that Denmark was affected by all the incidences of famine caused by unusually bad weather in northern Europe in the period 1000 to 1320. In other words, Denmark, like the rest of northern Europe, was probably ravaged by these catastrophes nine times in 320 years. On average this is approximately once every thirty-five years, but in the twelfth century and the first two decades of the fourteenth century it was once every twentieth year. The most severely afflicted periods were the 1140s and the 1310s, when northern Europe was exposed to several years of bad weather twice in each of these decades.

The Late Middle Ages

Judging by the very few Danish medieval annals that survive and the more numerous foreign ones, any interest on the part of chroniclers in the fall of temperatures after the *Medieval Warm Period* was hardly perceptible. The written sources seem to confirm that this fall in temperature was very modest. If English chronicles can be trusted, the frequency of cold winters did not increase in the Late Middle Ages. A comparison of the information found in these sources throughout the medieval period shows that there were seven hard winters in the eleventh century, eight in the twelfth century, eleven in the thirteenth,

nine in the fourteenth, and five between 1401 and 1450.⁴⁷ Nor is there much evidence to suggest that the winters became colder in Denmark during the Late Middle Ages.

The *Chronica Sialandie*, *Annales Essenbecensses*, and *Annales Ripenses* all note a great frost in 1323. The frozen Great Belt between Sealand and Funen formed a public highway, and people crossed the Belt on foot and on horseback in great numbers for six successive weeks around Candlemas that year. The waters between Sealand and Germany were also passable, according to the *Chronica Sialandie*. In 1431 the Franciscan Peder Olsen notes in his chronicle that the Sound between Sealand and Scania could be crossed by wagons and horses.⁴⁸ The so-called *Skibby Chronicle* recounts that during the winter of 1452 the Baltic Sea was so filled with ice that it was impossible to cross over to Scania.⁴⁹ This phenomenon occurred again in 1546.⁵⁰ It is tempting to interpret these scattered allusions to particularly icy winters—four such references in 225 years—as indications of falling temperatures, but we must not forget that even during so-called warm periods the waters around Denmark sometimes freeze. In the twentieth century there were 15 such winters.⁵¹ Reports exist of cold Danish winters in 1433 and 1495, in addition to the references to icy winters noted above.⁵²

The chronicles do not give the impression that the Late Middle Ages were particularly wet either. If we turn to the English chronicles once more, we see that in the eleventh century there were seven years when uncommonly wet periods were noted, in the twelfth century there were 18, in the thirteenth no fewer than 37, while the fourteenth century had only 20 particularly wet years, and the years between 1401 and 1450 eleven.⁵³ The only two unusually wet seasons mentioned in Danish annals and chronicles were in 1347 and 1489. The *Annales Sorani*

⁴⁷ Britton *A Meteorological*, p. 177.

⁴⁸ *Annales Danici Medii Ævi*, ed. Ellen Jørgensen (Copenhagen, 1920), p. 211.

⁴⁹ *DMA*, pp. 119, 267, 283; *Skibby Krøniken*, ed. A. Heise (Copenhagen, 1967), p. 26.

⁵⁰ *Monumenta Historiæ Danicæ. Historiske Kildeskrifter og Bearbejdelser af dansk Historie*, ed. Holger Rørdam, vol. 1 (Copenhagen, 1884), p. 379; F. V. Mansa, *Bidrag til Folkesygdommenes og Sundhedsplejens Historie i Danmark—fra de ældste Tider til Begyndelsen af det attende Aarhundrede* (Copenhagen, 1873), pp. 148–149.

⁵¹ I.e. winters when ice-breakers are required. http://www.dmi.dk/dmi/hvornar_bliwer_det_ismvinter.

⁵² *Annales Danici Medii Ævi*, p. 211; *Monumenta Historiæ Danicæ*, ed. Holger Rørdam, p. 321.

⁵³ Britton, *A Meteorological*, p. 117.

Recentiones claim that it rained a great deal in 1347. This statement cannot be verified from foreign sources, although English records give the impression that 1345 was marked by heavy rainfall. Perhaps the Danish annals misdated this season.⁵⁴ The *Eiderstedt Chronicle* claims that in 1489 it rained more than it had done in the whole of the preceding century. According to the chronicle this was unusual, compared with the floods it accounts for in the Friesian marshland in 1421, 1426, 1427, 1436, 1470, 1476, 1477, and 1479. These floods were caused by tempests rather than heavy rainfall. Besides these entries only a few records of storms can be found in Danish sources. Thus, the *Chronica Sialandie* describes a storm on 20 October in 1344, storm and earthquake two nights before Martinmas in 1340 plus a storm at Christmas in 1351, and the *Roskilde Annals 1448–1549* tells that, on the eve of St. Gregorius 1515, a storm which ravaged Denmark blew down the steeple of Our Lady's Church in Copenhagen.⁵⁵

There are few chronicles and annals from the Late Middle Ages compared with the High Middle Ages and they doubtless provide an even more fragmentary image of the climate than their earlier counterparts do. Judging by the increase in north European grain prices there must have been many more years of extreme weather conditions in the Late Middle Ages than the 15 to 20 incidents found in the chronicles. North German prices, which had a great impact on Danish ones, show high prices for grain in 1446–47, 1456–57, 1460, 1469, 1481–82, 1491–92, 1503–04, 1531, 1545–46, 1551–57, 1566–67, i.e. eleven times in the period 1446 to 1567. At least two of these years of high prices were caused by harsh weather conditions. The winter of 1480–81 was long and hard and the following summer dry, while 1445–46 saw winter rye failing.⁵⁶ Only one year of high prices in north Germany coincides with information about unfavourable weather provided by Danish chronicles: the frozen winter of 1546. Nevertheless, the background for most of these years of high prices was probably bad weather, although certainly prices were influenced by many factors other than climate.

The written sources do not confirm that the Late Middle Ages was

⁵⁴ DMA, p. 97; Britton, *A Meteorological*, p. 141.

⁵⁵ DMA, pp. 124, 126; *Monumenta Historie Danicæ*, ed. Holger Rørdam, p. 341.

⁵⁶ Michael North, *Geldumlauf und Wirtschaftskonjunktur im südlichen Ostseeraum an der Wende zur Neuzeit (1440–1570). Untersuchungen zur Wirtschaftsgeschichte am Beispiel des Grossen Lübecker Münzfunde und der schriftlichen Überlieferung* (Sigmaringen 1990), pp. 174 ff.; Poulsen, "Middelalder", p. 170.

a particularly unfavourable climatic period: they rather indicate that parts of the High Middle Ages included such periods. On the Continent winter temperatures in the twelfth century were at the same level as during the *Little Ice Age*, and according to the sources this was also the medieval century affected by the most frequent and extreme climatic swings. In the thirteenth century England was also apparently beset by unfavourable weather. In this century there were not only most hard winters and wet periods, but also, according to the chronicles, the greatest number of hot summers and periods of drought, and in addition a quantity of snowfall.⁵⁷ This chapter has demonstrated that the most serious famines caused by the weather in northern Europe occurred in the twelfth century, in the 1220s, and in the second decade of the fourteenth century. Concordant reports about severe north European food shortages from the later part of the Middle Ages have not been found. There is every reason to believe that Denmark was part of this north European pattern. It must be recalled, however, that this image partly represents a disproportion in the number of chronicles and annals that survive from the High and the Late Middle Ages. The relatively few late medieval Danish sources provide evidence for a number of episodes of bad weather, but they do not give the impression that this was a particularly cold or wet period. This, in turn, suggests that the climate in Denmark during the High Middle Ages was at least as tough an opponent to man and societal life as it was in the late medieval period.

⁵⁷ Britton, *A Meteorological*, p. 177.

HUMAN RESOURCES

KNOWLEDGE AND LITERACY

This chapter examines the potential to increase knowledge and undertake new initiatives in the Middle Ages that led to an improved management of resources. Crucial in this connection, of course, was the practical use of writing, i.e. the financial and administrative literacy often termed pragmatic literacy, and, in particular, developments in the keeping of accounts.

Learning by doing

The acquisition of knowledge in the Middle Ages was mostly practical, with the workplace providing opportunities to learn the management of resources. In this connection the family was an important unit in terms of introducing both children and servants to their future work. This point is stressed in *Peder Låle's Proverbs*, an anthology of traditional wisdom dating from the fourteenth century. For instance, we hear that “from the large oxen the smaller shall learn to pull”.¹ Inferior members of the household (*familia*) included both children and servants, who together were called *hjon* and served as a labour force on equal terms. A number of tax lists drawn up in Schleswig in the 1530s and 1540s show quite clearly that large farms in Denmark invariably employed labourers, while more modestly sized farms only engaged paid help if the sons and daughters of the family were unable to supply the necessary labour.² Ultimately, the aim of both groups, i.e. waged labourers and adult offspring, was to acquire farms of their own. Significantly, a law dated 1521 stipulates that a male farmhand must carry out his duties obediently until he is able to obtain a farm of his own.³

Servants as well as children were submitted to domestic discipline. Låle's proverbs stress the obedience of these members of the household

¹ *Peder Låles Ordsprog. I, 2. Christiørn Pedersens udgave 1515*, ed. Iver Kjær and Erik Petersen (Copenhagen, 1979), pp. 469, 640.

² Bjørn Poulsen, “Tjenestefolk på landet i reformationstidens Sønderjylland”, *Bol og By. Landbohistorisk Tidsskrift* (1993), 7–37.

³ *DGK*, 4, p. 367.

and the importance of discipline: "the rod of correction makes a good child".⁴ Physical chastisement of servants was quite legitimate, although not to the point of killing them, as in the case of a master craftsman who caused the death of his serving maid, Marine, in 1508.⁵ A court case dated 1538 records that an angry shoemaker's wife forbade her husband's journeyman from beating her maid: she would do this herself if any offence were found.⁶ This case also reveals that in principle female servants were the responsibility of the housewife, while male servants were the concern of her husband.

From an early age children acquired skills in agriculture, kitchen work, and fishing. The children of the nobility also gained their training by practice. For example, the nobleman Tyge Krabbe writes that in 1486 at the age of 12 he entered the service of King Hans as a page and the following year accompanied the king on journeys to Gotland and Oslo. From 1487 to 1497 Krabbe was employed in the humble position of keeper of the royal dogs. By 1490 he had advanced to squire, assisting the king at tournaments. In 1497 Krabbe participated in the war against Sweden, serving in the royal army, and soon his career took off, culminating in his elevation to commander-in-chief of the army.⁷ Nowhere in Krabbe's life is there any sign of book learning. More formalized practical training existed but primarily among craftsmen, who adopted the European system of apprenticeship from the fourteenth century. Quite frequently an element of this guild-based training included long periods of wandering for journeymen until they could establish themselves as masters. In this way Danish craftsmen acquired new technical skills and sophisticated know-how. Nevertheless, it was primarily the introduction of writing that made theoretical learning a possibility.

Orality and runes

The practical and oral elements of life were crucial in medieval society. People learned by seeing and hearing, while many important legal cases were still settled by verbal agreement. Some people were able to write but even as late as the fifteenth century most important documents

⁴ *Peder Låles Ordsprog I*, 2. pp. 469, 640.

⁵ *Malmö Rådstueprotokol (Stadbok) 1503–1548*, ed. Erik Kroman (Copenhagen, 1965), p. 17.

⁶ *Malmö Rådstueprotokol*, p. 141.

⁷ *DM*, 4th ser., 1, p. 83.

were the result of oral negotiation in the first instance. In the buying and selling of land, the vendor was required to place a small quantity of soil in the new owner's lap or cloak: it was this age-old action that made the purchase of land legally binding, not the written deed that might subsequently record the transaction.⁸ Charters and deeds still depended to a great extent on the testimony of old men or on the ability of a litigant to prove that a situation had pertained since time immemorial. For matters to have their origin in time immemorial (*frarilds tid*) was in itself often sufficient to settle a tricky case. Legal documents like rural deeds and charters were only adequate up to a point: they had to be supplemented by physical evidence, such as landmarks and stones.⁹ Documents also had to be implemented by all and seen to be accepted by all. A source dating from c. 1500 shows that communal beer-drinking played an important part in the proceedings. A particular *lensmand*, the king's senior representative, had negotiated a compromise between the inhabitants of two villages on the island of Falster who were disputing the rights to an area of moorland. The record shows that the officer donated two barrels of Danish beer and one barrel of German beer to the litigants but stipulated that it was to be drunk by all the owners who had a share in the said moor.¹⁰ It was the communal drinking of ale that established a lasting compromise, not the parchment itself.

The shift from speech to writing should not be stressed too heavily. It has been pointed out that elements of the Nordic eleventh-century skaldic verses have some resemblance to written charters, recording gifts of land.¹¹ On the other hand, it is true that writing represents a radical new way of learning and managing resources.

A point of particular interest to Danish and Nordic scholars is whether runic writing represented a kind of forerunner to medieval literacy with its dependence on the Latin alphabet. Runes are known in Denmark from the first century A.D. and probably originated there.¹² At first the common Germanic 24-character futhark alphabet was used

⁸ Lars Hamre, Gerhard Hafström, Ole Fenger, "Skøyting", in *KLNM*, 16, col. 155–167. *DD* 1, nr. 238.

⁹ Hoff, *Lov og landskab*, p. 136 ff.

¹⁰ *Rep.*, 2nd ser., 12703.

¹¹ Judith Jesch, "Skaldic Verse, a Case of Literacy *Avant la Lettre*?", in *Literacy in Medieval and early Modern Scandinavian Culture*, ed. Pernille Hermann (Odense, 2005), pp. 187–210.

¹² Erik Moltke, *Runerne i Danmark og deres oprindelse* (Copenhagen, 1976), p. 31.

but from the eighth century a specifically Nordic “runic alphabet” of 16 characters appears. While Latin script dominates existing parchment and paper sources, only two parchment manuscripts containing runic script and dating from the early fourteenth century are known. These documents are both written in Danish using a Scanian dialect: one is a version of the Law of Scania, the so-called *Codex Runicus*, the other is a translation from Latin of a religious text. Nonetheless, these texts undoubtedly represent a Latin-influenced form of literacy and should merely be regarded as the reflection of an antiquarian interest within the mainstream of Latin writing *per se*.

Runes are found incised on many materials. A thirteenth-century brick in a village church in Schleswig bears the runic inscription “*tihl-sten*”, i.e. brick.¹³ This presumably indicates that contemporary craftsmen were familiar with simple writing of this kind. An ever-growing group of runic sources consists of excavated bones, wooden staves, and pieces of lead. However, there is no evidence that thirteenth- and fourteenth-century Denmark saw the widespread distribution of runic script that is evidenced in Norway, where pieces of wood carved with everything from business contracts to pornography are common finds.¹⁴ Danish source material, especially inscriptions on bones, suggests that runic script spread to large numbers of people in towns like Lund and Schleswig in the eleventh and twelfth centuries but thereafter was ousted by Latin writing.¹⁵ Archaeological evidence found at Lund seems to indicate that bones bearing runic inscriptions date mainly from the period 1075–1150.¹⁶ However, even as late as the thirteenth century, runic script was alive and still being used by many.¹⁷

¹³ Jakob Povl Holck, “Cultural Contacts and Genres of Runes—Danish Literacy until 1300”, in *Literacy in Medieval and Early Modern Scandinavian Culture*, ed. Pernille Hermann (Odense, 2005), p. 161.

¹⁴ *Runmärkt. Från brev till klotter. Runorna under medeltiden*, eds. Sollbritt Benneth, Jonas Ferenius, Helmer Gustavson and Marit Åhlen (Stockholm, 1994).

¹⁵ Else Roesdahl, “Skrift og bog. Tid og fornøjelser”, in *Dagligliv i Danmarks middelalder. En arkæologisk kulturhistorie*, ed. Else Roesdahl (Copenhagen, 1999), p. 239.

¹⁶ Carelli, *En kapitalistisk anda*, p. 260. Runes were also used for messages before the eleventh century. Rimbert describes an incident in 832 when the missionary Ansgar was given a letter from Björn, King of Sweden, which he was told to render to the Holy Roman Emperor, Louis the Pious. According to Rimbert this missive was written “with [the king’s] own hand using characters formed after their fashion”. In the town of Hedeby a wooden stick incised with runes has been discovered: it dates from the ninth or tenth century and the text contains instructions addressed to a man. Else Roesdahl, *Vikingerne verden. Vikingerne hjemme og ude* (Copenhagen, 2001), p. 58.

¹⁷ *Runmärkt*, eds. Sollbritt Benneth et al.

It is unlikely that many people were able to read the well-known rune stones erected in the Danish countryside in the tenth and eleventh centuries but it is possible that these stones had an important function in society as marks of possession and inheritance.¹⁸ Nevertheless, most stones simply proclaim a death.¹⁹ A very late rune stone erected by Archbishop Absalon and his kinsman Esbern Mule at a church in Scania in the late twelfth century documents the same antiquarian interest that we saw in the *Codex Runicus*. This stone bears a Danish inscription: "Christ, the son of Mary, help those who build this church. Absalon and Esbern Mule."²⁰ This can only have been of interest to the archbishop as a curiosity, for Absalon famously promoted the *Gesta Danorum*, a work written entirely in Latin by Saxo Grammaticus.²¹

The Latin Alphabet

In general, writing in the Middle Ages relied on the Latin alphabet. The use of this alphabet integrated Denmark fully into a wider Europe and rendered the writing and exchange of longer texts quite easy. The creation of a widespread and flexible form of artificial memory offered new ways of controlling society and its goods. It was not only the victory of the alphabet that was vital but also the internationalization of the written language that followed.

There is no doubt that medieval man understood the value of mastering several languages. A didactic prose work written in Norway, *Konungs skuggsjá* (Latin: *Speculum regale*), around 1250 states that: "...if you wish to become perfect in knowledge, you must learn all the languages, first of all Latin and French, for these idioms are most widely used".²² In a Danish context the preferred languages came to be Danish, Latin, and Low German.

¹⁸ It is possible to argue that rune stones generally concern inheritance claims. Birgit Sawyer, *The Viking-Age Runestones. Custom and Commemoration in Early Medieval Scandinavia* (Oxford, 2000). For a critical assessment of this theory, see Marie Stoklund, "Tolkningen af Bække-, Læborg- og Jelling-indskrifterne", *Hikuin*, 32 (2005), 37–48.

¹⁹ Marie Stoklund, "Runer og skriftkyndighed", in *Viking og Hvidekrist. Et internationalt symposium på Nationalmuseet om Norden og Europa i den sene vikingetid og tidligste middelalder*, ed. Niels Lund (Copenhagen, 2000), p. 88.

²⁰ Lars Magnar Enoksen, *Skånska runstenar* (Lund, 1999), p. 100.

²¹ *Saxo*.

²² *Konungs skuggsjá. Speculum regale*, ed. Finnur Jónsson (Copenhagen, 1920), III.

The earliest surviving examples of the Latin alphabet to be used in Denmark are coin legends, the first dating from 995: this coin, minted for King Swein Forkbeard, bears the inscription in Latin: “ZVEN REX AD DENER”. Many eleventh-century coins carry Latin legends of a Christian nature: a coin minted by King Cnut in Lund bears the opening words of St John’s Gospel in Latin. In assessing Latin literacy in the eleventh century, therefore, we must include the mint masters alongside the clergy. Latin became the victorious language, and Denmark, unlike Norway and Iceland, developed no literature in the vernacular during the twelfth and thirteenth centuries. The fundamentally literate nature of Latin created a barrier for many. Generally speaking the language remained the domain of the clergy and even they could encounter problems. An anecdote recorded by Saxo and referring to the eleventh century reveals that even the Bishop of Roskilde was not able to use Latin correctly.²³ Nevertheless, from the eleventh century onwards a considerable and growing number of original Latin texts were produced within the Danish realm, indicating an active knowledge of the language. These texts could be charters or letters but also devotional works, history books, or land registers.

The only important group of writings produced in the vernacular during the High Middle Ages were law texts. In 1170 a chronicle states that “the laws of the Danes were given” and, although the meaning of this is not quite clear, it is apparent that some kind of codification of the law was taking place.²⁴ Two sets of ecclesiastical laws, one for Scania and one for Sealand, as well as an ordinance governing the housecarls (*hird*) of the Danish king, prove that laws were being recorded in Latin in the second part of the twelfth century. Probably also from this period is the Law of Sealand, which was written in Danish, while the so-called Law of Scania, also in Danish, appears to date from c. 1220. The Law of Scania was also rendered in a contemporary Latin paraphrase attributed to the Archbishop of Lund, Anders Sunesen. The Law of Jutland (*Jyske Lov*) testifies to an increasing royal influence on the legislature, while also standing as a kind of monument to the Danish

²³ Saxo, 11, 7, 7.

²⁴ DMA, p. 166. “*Leges Danorum edite sunt*”. It has been suggested that this entry refers to the law book called *Arvebog* and *Orbodemål*. Ole Fenger “Jyske Lov og de øvrige danske landskabslove”, in *Jyske Lov 750 år*, ed. Ole Fenger and Christian Jansen (Viborg, 1991), p. 47.

language. According to its preface, the Law was presented in March 1241 by King Valdemar II to his subjects at Vordingborg.²⁵ These laws, which regulated society in so many ways, were promulgated widely and have survived in more copies than any other texts produced within the medieval Danish realm. From a language point of view, however, they represent a parenthesis.

It was not until after 1400 that Danish really came into its own as a means of written expression. Shortly before 1380 the proceedings of the royal chancellery changed to Danish and the use of the vernacular quickly spread to other parts of society.²⁶ In the well-preserved archive of St Agnete's Abbey in Roskilde we can see that around the year 1410 the use of Danish became the rule. Moreover, by about 1500 it is evident that the lay administrator there was finding Latin difficult, while a number of letters addressed to the abbey were translated into Danish and sewn into the Latin originals.²⁷ There is evidence that this growing tendency to use Danish also influenced the production of books. However, while from the thirteenth century onwards the laws were consistently written in Danish, very few examples of other types of book written in the vernacular exist from this period. The earliest surviving non-legal books in Danish date from the first three decades of the fourteenth century while most of these (91 per cent of the total) date from the fifteenth century.

Low German was commonly used in the Duchy of Schleswig from early times but it soon spread to the rest of the country as the result of the considerable number of Germans who settled in Danish towns. It is a fact that credit transactions and commissions entered into with partners in Germany made it necessary for Danish merchants to acquire some knowledge of German and, characteristically, a surviving early sixteenth-century ledger from Malmö has been kept in German.²⁸ In

²⁵ The Law of Jutland was most probably meant to apply throughout the whole realm. Per Andersen, *Rex imperator in regno suo. Dansk kongemagt og rigsløvgivning i 1200-tallets Europa* (Odense, 2005).

²⁶ Peter Skautrup, "Sprogsiftet i danske Diplomer i det 14. Århundrede", in *Studier tillägnade Axel Kock Arkiv för nordisk filologi*, supplement to vol. XL (Lund, 1929), pp. 342–349; Peter Skautrup, *Det danske sprogs historie*, vol. 2 (Copenhagen, 1947), pp. 29–31.

²⁷ *Roskilde Sankt Agnete klostres jordebøger og regnskaber 1508–1515*, ed. Thelma Jexlev (Copenhagen, 2001), p. 19.

²⁸ Emilie Andersen, *Malmököbmanden Ditlev Enbeck og hans regnskabsbog. Et bidrag til Danmarks handelshistorie i det 16. århundrede* (Copenhagen, 1954).

general, the influence of Low German, i.e. the dialect used in Lübeck, became quite pronounced in the Late Middle Ages and the Danish language changed decisively as a consequence of this influence, particularly with regard to word formation and loan words.²⁹

Danish literacy and its milieu in the eleventh and twelfth centuries

Whereas the man carving runes needed only a wooden stick and a knife, the Latin alphabet required more advanced techniques. One of these techniques involved the use of a tablet made of wood or some other material and marked with a depression in which a layer of wax was placed: a stylus could then be used to write on the surface. Finds of wax tablets and styluses show that they existed in Denmark at an early point. It is clear, especially in Lund and Roskilde, that they were widespread by the first part of the eleventh century. It has been suggested that this popular use of the tablets, which were suitable for recording notes or memoranda but not for storing in archives, might derive from the employment of Anglo-Saxon mint masters working in these two towns.³⁰ This possibility could be supported by the find of a lid from a stylus box perhaps made by the English mint master Leofwine, who worked in Lincoln and thereafter at Lund from 1018 to the mid-eleventh century.³¹ The find at Dalby in Scania of a stylus bearing a runic inscription, "Bove owns this stylus" shows that in the early phase, as we also know from Norway, the tablets could be incised in runes.³²

In the eleventh century the use of Latin writing appears mainly to have been limited to groups around the king, for instance his Anglo-Saxon mint masters and the clergy. The objects most likely to carry inscriptions were coins and wax tablets. It is not until the end of this century that we find real indications that parchment was used in

²⁹ Vibeke Winge, *Dänische Deutsche—deutsche Dänen. Geschichte der deutschen Sprache in Dänemark 1300–1800 mit einem Ausblick auf das 19. Jahrhundert* (Heidelberg, 1992); Vibeke Winge, "Hanseater og plattysk påvirkning af dansk sprog i senmiddelalderen", in *Danmark og Europa i senmiddelalderen*, eds. Per Ingesman and Bjørn Poulsen (Aarhus, 2000), pp. 326–335.

³⁰ Carelli, *En kapitalistisk anda*, p. 360.

³¹ Carelli, *En kapitalistisk anda*, p. 445.

³² Stoklund, "Runer og skriftkyndighed", p. 90.

Denmark. A well-preserved seal belonging to Duke Baldouin IV of Flanders (988–1035) has been found in Jutland but we know nothing of its context.³³ It was not until the reign of King Sven Estridsen (1047–74) that the king and his bishops receive written missives from the pope and the Archbishop of Hamburg. In a letter dated 1075 the pope complains that Svend Estridsen no longer writes to him, although earlier he had apparently “received writings” from the king.³⁴ From the latter part of the eleventh century a number of texts written on parchment have survived. The oldest is an illuminated book of gospels produced by the scriptorium at the house of Augustinian canons in Dalby sometime after 1066.³⁵ Of slightly later date are two texts written to commemorate St Cnut, killed in 1086. In 1095 a metal plate bearing a Latin inscription was placed on his tombstone, while a hagiographic text describing the king’s sufferings, the *Passio S. Kanuti Regis et Martinis* (Life of St Cnut), was also composed: both texts were produced by Anglo-Saxon monks.³⁶

For historians, the most important text from the eleventh century (because it offers an important insight into contemporary society) is a charter dated 21 May 1085, in which King Cnut grants land in Scania and Sealand, as well as 27 marks in annual revenues from the towns of Lomma, Helsingborg, and Lund, to the Church of St Lawrence at Lund (later the cathedral but at this point unfinished).³⁷ This fairly sophisticated charter may indicate that some form of royal chancellery existed; at any rate in 1135 King Erik Emune had a canon of Lund, one Riko, as his chaplain and scribe.³⁸ The title ‘chancellor’, *cancellarius*, is not documented until 1158, however, when it is used by the royal chaplain Radulf (Ralph), an Englishman.

It seems probable that the common use of the Latin alphabet took its starting point in cathedrals and bishops’ palaces. The scriptorium at

³³ Michael Andersen, “Seglstamper fra middelalderen i danske samlinger”, in *Middelalderlige seglstamper i Norden*, eds. Michael Andersen and Göran Tegnér (Roskilde, 2002), p. 61.

³⁴ *DD*, 1.2, no. 11. Carelli, *En kapitalistisk anda*, p. 264.

³⁵ Merete Geert Andersen, “Dalbybogen”, in *Levende ord & lysende billeder. Den middelalderlige bogkultur i Danmark*, 1, ed. Erik Petersen (Gylling, 1999), pp. 63–66.

³⁶ Tue Gad, “Knut den Hellige”, in *KLNM*, 8, col. 596–600.

³⁷ *DD*, 1.2, no. 21.

³⁸ Birgitta Fritz, “Knut den heliges gåvobrev av 21 maj 1085 och dess öden under 900 år”, in *Gåvobrevet 1085. Föredrag och diskussioner vid Symposium kring Knut den heliges gåvobrev 1085*, eds. Sten Skansjö and Hans Sundström (Lund, 1988), pp. 21–35.

Lund Cathedral was certainly one such centre. In the early 1120s, the post of *armarius*, serving as the chancellor of the canons and also acting as their librarian, was set up here, while before 1123 the *Necrologium Lundense* was compiled. Besides noting the deaths of canons and other benefactors, this text functions as a cartulary and register of documents.³⁹ In the following years, the scriptorium produced charters, mass books, chronicles, and statutes. We must therefore assume that as early as the eleventh century a cathedral school existed at Lund, and certainly by the twelfth century similar schools teaching grammar, rhetoric, and dialectics had also been founded at other Danish cathedrals. Evidence of such schools exists for Viborg (c. 1130), Ribe (c. 1145), and Roskilde (1158).⁴⁰ During the period 1140–1170 the custom of writing on parchment spread from these ecclesiastical centres to major parts of Danish society, perhaps as a consequence of the division of the country into parishes. Writing was now used for many purposes, and appeared on buildings, gravestones, fonts, bells, and seals. The twelfth century can be regarded as the time when Latin literacy became truly integrated into royal and ecclesiastical circles.⁴¹

Charters and memoranda

It is undeniable that the church was in the vanguard of the spread of literacy in Scandinavia. In 1198 the pope lamented the fact that written wills were not used in Denmark, so Archbishop Absalon's testament, drawn up and written in 1201, doubtless acted as a prototype and is one of the earliest known written wills in Denmark.⁴² With the institution of written wills, valuable gifts to the church could be protected. Church manuscripts long exercised a kind of magic, as we see from a paragraph in the Law of Scania (c. 1220): this stipulates that on paying a fine for homicide the guilty person "should not swear on relics but

³⁹ *Necrologium Lundense. Lunds domkirkes nekrologium*, ed. Laurits Weibull (Lund, 1923).

⁴⁰ Bjørn Kornerup, *Ribe Katedralskoles Historie. Studier over 800 Aars dansk Skolehistorie, I (1145–1660)* (Copenhagen, 1947); Bror Olsson, "Katedralskola. Danmark och Sverige", in *KLNM*, 8, col. 347–349.

⁴¹ Carelli, *En kapitalistisk anda*, pp. 253–366.

⁴² Herluf Nielsen, "Testamente. Danmark", in *KLNM*, 18, col. 218–221. An earlier will dating from 1177/78, 1183—*DD*, 1.3, no. 70, 112, 113, 114, 115.

Table 1 The chronological distribution of all charters and letters registered in *Diplomatarium Danicum* shown in 25-year intervals

Year	Numbers of charters and letters
1100–1124	23
1125–1149	53
1150–1174	138
1175–1199	212
1200–1224	444
1225–1249	447
1250–1274	754
1275–1299	1045
1300–1324	1973
1325–1349	2103
1350–1374	3230
1375–1399	3937

on a book”.⁴³ This early use of written texts gave the church a degree of power; however, from the thirteenth century onwards other sectors of society also became increasingly literate.

In the thirteenth century many new written sources appear. Even if we simply focus on pragmatic texts recording material goods, the growth in output is huge. The table above shows all known charters and letters produced in Denmark between 1100 and 1399.

Overall, it can be seen that few charters and letters before 1200 have survived and that a rapid growth then takes place during the thirteenth and fourteenth centuries. Texts associated with the king and his administration long dominated the corpus: pre-1250 they account for 40 per cent of the total number of known letters.⁴⁴ Typically, these charters grant gifts or privileges to religious foundations, doubtless mirroring a genuine weighting in the output but also reflecting their optimal chances of survival and preservation. Among the oldest royal charters (1104–1117) is one given by King Niels to the Church of St Cnut, Odense: this charter granted the church the right to all land it had already acquired or would acquire in the future.⁴⁵ Five royal privileges were granted in the period 1140–48: the recipients were all different but the texts themselves are closely connected. This shows

⁴³ *DGLK*, 1, p. 83, 530. “*æi hælæhdome, uten at bok.*”

⁴⁴ Carelli, *En kapitalistisk anda*, p. 271.

⁴⁵ *DD*, 1.2, no. 32.

that at that time a royal chancellery was in existence and using standardized phraseology.⁴⁶ The number of people receiving royal charters soon increased. In 1140 the king sent a writ to the *herred* of Tybjerg, and in 1177 and 1182–1202 letters were dispatched to other Danish *herreder*.⁴⁷ In general it is legal or administrative issues that dominate the surviving texts.

Individual lay magnates also recorded land rights and business transactions in the thirteenth century. A very early example of book-keeping is found in a letter dated 1199 in which the magnate Jens Sunesen pledges a farm to Sorø Abbey for 200 marks so that he can go on a pilgrimage. The letter states that his bailiff will retain the use of the pledged land “but render [to] the abbot all received rents, and annually give an account of what he has given out in that connection, so that when Lord Jens returns it will be evident to everyone what has been paid and what remains of the debt”.⁴⁸ This can only mean that some kind of written account was maintained at the farm.

King Valdemar's Survey (c. 1230) illustrates two points: that the central administration of the realm had begun to record royal possessions and revenues, and that information concerning these revenues could be required in writing from officers representing the king in various localities.⁴⁹ It is doubtful, however, that the varied content of this particular survey had much practical use in the royal administration. It survives in a manuscript containing many other items. This manuscript, which was probably produced at Sorø Abbey, contained 153 leaves of parchment. In addition to the fiscal records, we find a perpetual calendar, annals (*Valdemarsårbogen*), a list of Danish kings and a list of popes, various theological works, part of a will, and descriptions of travels to Estonia and Palestine. Everything is in Latin and the manuscript was compiled around 1300.

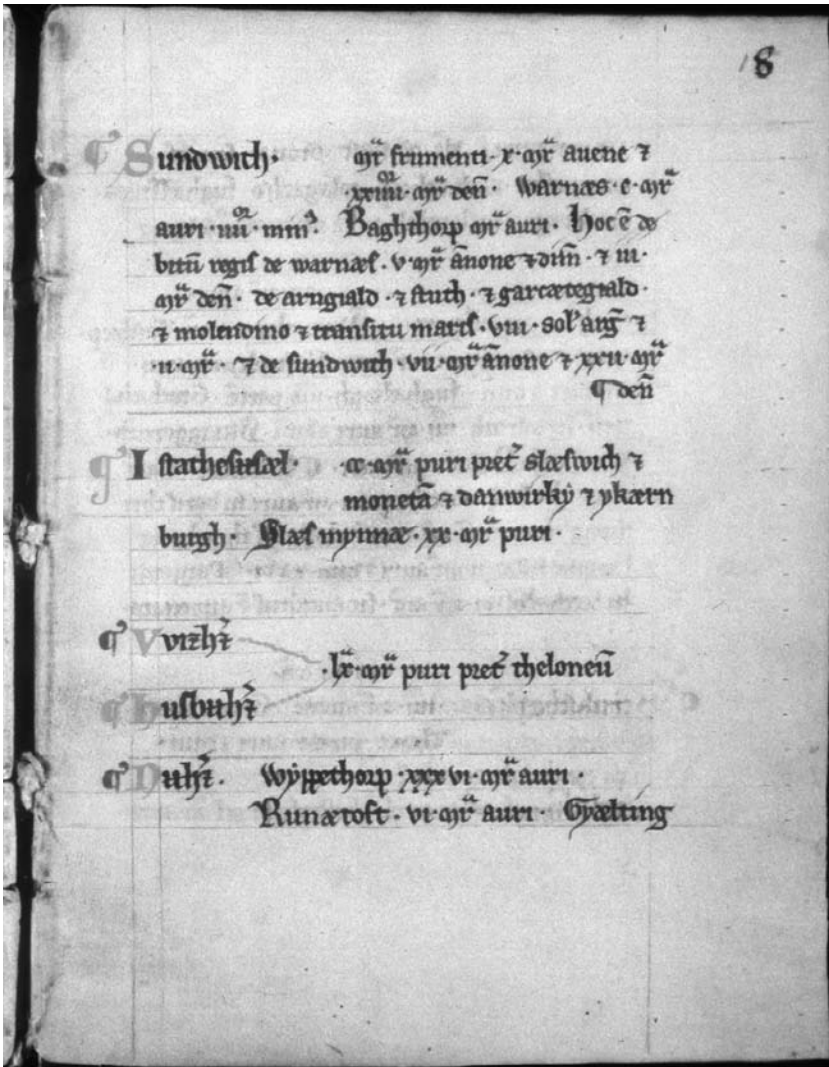
The sections of the manuscript dealing with royal finances are made up of different lists. The most important of these, the “*hovedstykke*”, dates from 1231. Using information provided by local officers, it contains the revenues of each district (*herred*), including the size of royal domains and the duty owed to the king on his arrival in the district reckoned

⁴⁶ *DD*, 1.2, no. 78.

⁴⁷ *DD*, 1.2, no. 79. *DD* 1.3, no. 66. *DD* 1.3, no. 109.

⁴⁸ *DD*, 1.3, no. 257.

⁴⁹ *KVJ*, Mikael Venge, *Danmarks skatter i middelalderen indtil 1340* (Copenhagen, 2002), pp. 72 ff.



Ill. 4. Page from the so-called 'hovedstykket' in "King Valdemar's Survey",
from about 1231

in hospitality (lodgings, provisions, stabling and fodder) or silver marks. In the case of certain towns the lists also include duties payable from customs and the minting of coins. Connected to this list is a revenue list, *indkomstlisten*, a summary of royal revenues dating from about 1240, and the *kongelevsliste*, recording the most important royal estates. Two lists dating from around 1241, the plough list and the town list, *plovlisten* and *købstadslisten*, formed the basis on which plough tax could be levied in rural parts of Sealand, Lolland, Falster, and Møn, along with a corresponding tax levied in the towns. A list of islands, *ølisten*, records almost all of the smaller Danish islands and the game that could be hunted there, while revenues from specific parts of the realm, namely Halland, Lolland, Falster, Fehmarn, and Estonia, are listed separately and in detail. A special section specifying the provisions required for the king, his retinue, and their horses during a two-night stay. Finally, *King Valdemar's Survey* contains a mysterious "list of brothers", (*broderlisten*), which comprises noblemen in groups of three who were located in various parts of the country.

From the thirteenth century there survive a number of chronicles of monastic origin that illustrate the way in which narrative writing could now be used to defend resources. In the early part of this century the Cistercian abbey at Øm was under attack for its privileges and tax exemptions and this resulted in a history of the foundation of the abbey, *Exordium monasterii quod dicitur Cara insula*.⁵⁰ The account is carefully documented with charters and wills, so that it also constitutes a selective cartulary. The history of the Cistercian abbey at Sorø is supported by similar 'evidence' in the preface to its register of endowments: this part of the chronicle cannot be dated later than 1214.⁵¹

Schooling for the laity

Schooling became more widely available in the thirteenth century. In 1246 a grammar school, i.e. a chapter school connected to Our Lady's Church, was founded in Copenhagen, while in 1277 the Benedictines opened a school at St Cnut's Church, Odense, which functioned as a

⁵⁰ Brian Patrick McGuire, *Conflict and Continuity at Øm Abbey* (Copenhagen, 1976).

⁵¹ Herluf Nielsen, "Klosterkroniker", in *KLNM*, 8, col. 546–547.

cathedral school.⁵² Meanwhile, the Franciscans and Dominicans were developing an extensive system of schools which in turn prompted the Cistercians to set up their own foundations. In Lund the Franciscan school gradually developed into a kind of institute of higher education, a *studium generale*.⁵³ We can also see that around this time a number of children from country areas were enrolled as pupils. In 1278 the Bishop of Ribe ordered that a yearly rent from the country parish of Darum be allocated to the cathedral school at Ribe. He stipulated that the schoolmaster “should teach all pupils (*scholares*) of that parish [i.e. Darum], both poor and rich, as well as one hundred other poor pupils from our diocese”.⁵⁴ As a result of this directive a considerable number of children from rural areas must have learned to read and write, and in Latin at that.

Danish students also began to travel abroad. In the second decade of the twelfth century, one Eskil, later to become an archbishop, received his education at the cathedral school in Hildesheim, and soon the University of Paris became a frequent goal to which students aspired.⁵⁵ In the 1180s Peder and Anders Sunesen were studying in Paris in preparation for their future careers in the church, to become the Bishop of Roskilde and the Archbishop of Lund respectively. When Anders returned to Denmark in the 1190s he served the king as chancellor, while also, it is said, being occupied with his studies. Furthermore, he was also said to have attended lectures in church law at Bologna.⁵⁶

Controlling rural and urban resources in the fourteenth century

Judging by surviving sources, the period 1290 onwards saw the increasing registration of land acquired by the church and the revenues generated. From the year 1290 two collections of ecclesiastical records are known. The first is the so-called great-grandmother of Ribe (*Avia Ripensis*), written between 1290 and 1322 by Master Astrath, a canon of the cathedral, and containing copies of privileges, deeds, and lists

⁵² Bror Olsson, “Katedralskola. Danmark och Sverige”, in *KLNM*, 8, col. 347–349.

⁵³ Vagn Skovgaard-Petersen, “Skole”, in *KLNM*, 15, col. 631–637.

⁵⁴ *DD*, 2. 2, no. 328.

⁵⁵ Åke Sällström, “Studieresor”, in *KLNM*, 17, col. 329–332.

⁵⁶ Sten Ebbesen, “Danskerne, videnskaben og bøgerne i middelalderen”, in *Levende ord og lysende billeder. Den middelalderlige bogkultur i Danmark. Essays* (Gylling, 1999), pp. 119–126.

of revenues, as well as inventories of items for use in the diocese of Ribe and its cathedral chapter.⁵⁷ The second source to date from 1290 is the so-called “wood book” (*Træbog*), a register of estates belonging to the Bishop of Roskilde. This is now known only in excerpts contained in a more recent land register but it is clear that it was originally quite detailed and noted the size of individual farms and their expected yearly duties. While we can only guess the purpose of these early land registers, it is clear that the cartulary and land register of the Canons of Aarhus, dating from c. 1315, represented an attempt to keep track of revenues in years marked by crop failure and bad weather.⁵⁸ At about the same time, around 1316, a list of the booths set up at the huge Scanian fish markets was apparently drawn up for the king.⁵⁹

The plague epidemics of 1349–50 and the subsequent turnover of land resulted in a huge increase in the number of ecclesiastical land registers. In 1352, the chapter of Schleswig Cathedral compiled a register of their revenues from landed wealth which now exists only in excerpts.⁶⁰ In 1370 the Bishop of Roskilde, Niels Jakobsen Ulfeld, initiated a huge project known as the Bishop of Roskilde’s Land Register (*Roskildebispens jordebog*). Dating from before 1380 this was the work of seven scribes and it lists precise details of 2,000 rural farms and their rents and duties, as well as a complete register of all plots of land owned by the cathedral chapter in Copenhagen. Two copies of the register were made, one for the bishop’s archive, the other for the canons’ archive.⁶¹ While these registers were being compiled, the king was also carrying out the same exercise, although we know little of his registers. However, in the 1370s a list was drawn up of the royal estates, their duties, and the taxes levied from four districts, *herreder*, in north Sealand: this is known only from a transcript of the original, now lost.⁶²

⁵⁷ Erik Buus, “Ribe Oldemoder”, in *KLNM*, 14, col. 164–165.

⁵⁸ *ADJ; Århus Kannekebords Jordebog ca. 1315*, ed. Poul Rasmussen (Viborg, 1992); *Levende ord & lysende billeder. Den middelalderlige bogkultur i Danmark*, 2, Catalogue, ed. Erik Petersen (Gylling, 1999), p. 32; Nils Hybel, “Klima, misvækt og hungersnød i Danmark 1311–1319”, *HT* 97 (1997), pp. 29–39.

⁵⁹ Carsten Jahnke, *Das Silber des Meeres. Fang und Vertrieb von Ostseehering zwischen Norwegen und Italien (12.–16. Jahrhundert)* (Weimar/Vienna, 2000), p. 75.

⁶⁰ Erik Pontoppidan, *Annales Ecclesiae Danicae diplomatici* (Copenhagen, 1741–52), 2, p. 181 ff.; *SRD*, 6, pp. 574 ff.

⁶¹ *DMR* 3rd ser., 1; *KLNM*, 14, col. 424–427.

⁶² *ÆDA* 1, p. 60; *ÆDA*, 5, p. 8; Bjørn Poulsen, “Korn eller kvæg. Landbrugets specialisering i senmiddelalderen belyst ved studier på Stevns og i Odsherred”, *Bol og By. Landbohistorisk Tidsskrift* (1985:1), 7–20.

From 1388–89 we see a new type of source, one which deals with actual revenues rather than with anticipated ones. It is a fair copy of the yearly income and outgoings from one of the Bishop of Ribe's farms. There is reason to believe that the practice of using bailiffs to run large farms made such accounts necessary, a point also illustrated by the above-mentioned letter dated 1199.⁶³ On the larger farms, run by bailiffs for a fixed payment, the keeping of accounts was unavoidable. However, no such accounts from before the late fifteenth century have been found except for the unique example dated 1388–89 and noted above. This account was kept at a castle (*castrum*) of Brink, built by the Bishop of Ribe in the second half of the fourteenth century. It is written in two parts, covering income and expenditure. These parts have been subdivided into sections recording cash transactions and revenues in kind. The largest part of the account comprises a week by week record of goods in kind that have been consumed on the estate. From a technical point of view, it is significant that the account, which is in Latin, has been written on paper. The watermark on the paper establishes that it was made in the Netherlands.⁶⁴

While writing was being used to facilitate the management of land, it was also being employed in urban administration. In 1292 the lord of Copenhagen, the Bishop of Roskilde, ordered that all verdicts and disputes settled by the town court (*bytinget*) and the town council be kept in a special book.⁶⁵ This has not survived but we do have one page of the book recording proceedings from the court held at Copenhagen Castle in 1293.⁶⁶ In 1328, a collection of ordinances governing the towns of Scania stipulated that all new burgesses be registered in a book set aside for that purpose.⁶⁷ Town archives were also kept from this period onwards, although generally these are now in a bad state of preservation. The archive belonging to the town of Ribe contains records of numerous privileges granted from the thirteenth century onwards, as

⁶³ *DD*, 1.3, no. 257.

⁶⁴ "Regnskabet for Ribebispens gård Brink 1388–89", eds. Bjørn Poulsen and Fritz S. Pedersen, *DM*, 8. series, no. 6 (1993), pp. 316–336; Bjørn Poulsen, *Bøndens penge. Studier i sønderjyske regnskaber 1400–1650* (Odense, 1990), pp. 28–49.

⁶⁵ *DD*, 2.4, no. 69.

⁶⁶ *DD*, 2.4, no. 94. See Erik Kjersgaard, *Byen og borgen Havn. Københavns Historie*, vol. 1 (Copenhagen, 1980), p. 76.

⁶⁷ *DGK*, 4, s. 335–340 (§ 25).

well as a considerable number of documents concerning civic matters from 1311 onwards: it gives us a good impression of the range of documents produced on behalf of town councils in this period.

It was also presumably during the thirteenth century that churches set up careful book-keeping procedures in response to the recent reorganization of Denmark into parishes. From now onwards finances were managed by church wardens. In all, 20 account books or notebooks from Danish medieval churches have survived, the oldest starting in the year 1372 and belonging to the Church of Our Lady, in Assens.⁶⁸

The increased use of writing in Late Medieval administration

In the fifteenth century the production of written documentation appears to have grown rapidly. The most important factor in this context was the introduction of paper. Nonetheless, in 1334 a papal delegate reported, with regret, that he had had to buy the more expensive parchment in Denmark, "as paper is not found in the said realm".⁶⁹ From the end of the fourteenth century, paper—which was both cheaper than parchment and could be manufactured in bulk—was imported into Denmark from Italy, Germany, and the Netherlands.⁷⁰ Soon it was possible to buy paper in towns throughout Denmark. This development clearly eased the keeping of small routine accounts, such as those at Brink Castle, and this in turn generally resulted in an enormous growth in the production of all sorts of written information.⁷¹ Besides administrative and legal records, the number of private letters also grew. An analysis of the surviving documents found in Danish sources and dating from 1400–1500 shows an annual increase in quantity of approximately 1.5 per cent. The transition from Latin to Danish in written communications

⁶⁸ Lars Bisgaard, "Sogn, fællesskab og gavegivning i danske senmiddelalder", in *Danmark og Europa i senmiddelalderen*, eds. Per Ingesman and Bjørn Poulsen (Århus, 2000), pp. 336–360.

⁶⁹ *DD*, 2.11, no. 152.

⁷⁰ Thelma Jexlev, "Om anvendelsen—og anvendeligheden—af papir som dokumentmateriale i danske middelalderbreve. Nogle iagttagelser", *Arkiv. Tidsskrift for arkivforskning* 1 (1966–67), 87–99.

⁷¹ Ole Bay, "Donationer til kirken i dansk senmiddelalder", in *Danmark i senmiddelalderen*, eds. Per Ingesman and Jens Villiam Jensen (Århus, 1994), p. 319.

around 1400 undoubtedly promoted both a more widespread literacy and a visible rise in the number of documents produced.⁷²

In terms of the administrative use of writing, we know next to nothing about the practices used in manor-houses or on the estates of noble landowners. However, it is possible to claim some degree of continuity in the administrative use of writing employed by the church. As noted above, land registers and books listing the collection of revenues were maintained as standard practice from the fourteenth century. One example of this kind is the land register compiled for the Canons of Schleswig around 1437, which was drawn up in an attempt to estimate the losses sustained during the troubled years 1352 to 1437. Another very detailed account of revenues and expenditures has been preserved for the year 1504 and comes from Schwabstedt Manor, which belonged to the Bishop of Schleswig.⁷³ Representing religious houses are a land register from the Cistercian Esrum Abbey dating from 1497 as well as an undated register from the monastery at Tommerup (Tommarp), Scania.⁷⁴ The first extensive series of monastic accounts date from 1467–81 and come from St Peder's Abbey, a Benedictine house at Næstved.⁷⁵ These documents list the yearly rents received from the abbey's 400 or so farms, along with the various revenues derived from three towns and the expenditure outlaid on servants. The accounts have been drawn up on the basis of a now lost land register: in a Danish context this represents the first indisputable evidence of the double function served by the land register and its itemized accounts. A further development in this process can be found in the accounts of St Agnete's Abbey, Roskilde, which date from 1508–1515.⁷⁶ Here double-columned pages have been used, the first column showing anticipated revenues, the other showing actual ones. In 1513 the abbey even attempted to institute a scheme whereby the left-hand column comprised a land register, identifying

⁷² Peter Skautrup, "Sprogskiftet i danske diplomer i det 14. århundrede", in *Studier tilegnede Axel Kock*, Arkiv for nordisk filologi, supplement to vol. 40 (Lund, 1929), pp. 342–349; Peter Skautrup, *Det danske sprogs historie*, vol. 2 (Copenhagen, 1947/1968), pp. 29–31.

⁷³ QS, 6, pp. 54–103. Landesarchiv Schleswig, Abt. 162. Schwabstedt Amtsrechnungen 1504.

⁷⁴ *Codex Esromensis. Esrum Klosters Brevbog*, ed. Oluf Nielsen (Copenhagen, 1880–1), pp. 264–280.

⁷⁵ *Skovklosterregnskaberne 1467–1481*, ed. Merete Dahlerup (Copenhagen, 1993).

⁷⁶ *Roskilde Sankt Agnete klostres jordebøger* (see above n. 25).

the farm and the name of the tenant and followed by a line for each different kind of rent owing: the right-hand column set out the dates, with spaces for the years 1513 to 1520.

In royal administration we see the scriptorium of the chancellor, the chancellery, expanding in the fifteenth century. Before 1400 the office was manned solely by clergy but from this point onwards they were joined by lay clerks, usually the sons of local burgesses.⁷⁷ The number of clerks in the administration grew considerably in the second half of the fifteenth century and we know the names of 36 scribes employed in the chancellery during the reign of Christian II (1513–23).⁷⁸ Under Frederik I (1523–33) a separate office for financial administration was created, controlled by a so-called rentemester (master of rents). As a consequence of the increased output of writing, the use of books to record outgoing letters became common. Letter books showing the king's international Latin correspondence survive for the years 1455–68 and 1506–12, while 1512 dates the earliest surviving letter books to containing private or domestic letters.⁷⁹ The central archives were also maintained in more stationary form, in that the archive was no longer carried around the realm by a peripatetic ruler. From the time of Valdemar IV Atterdag (mid-fourteenth century) we see the first genuine archive kept at Vordingborg Castle, and soon another was being maintained at Kalundborg Castle. However, from the mid-fifteenth century Copenhagen became the principal royal residence and the site of the chancellery, so that from this point onwards the archive material was both written and preserved at Copenhagen Castle.

Records associated with the state administration are in a very poor state of preservation. From the central administration we have a few lists showing the royal domains, the *len*, from the reign of Queen Margrethe onwards. These include a very interesting and detailed survey of the anticipated annual revenues from the Schleswig-Holstein *len*, an account drawn up in 1490 to facilitate the first-ever division of these two duchies between king and duke.⁸⁰ In many ways this document resembles an authentic state budget. On the other hand, we would have to move on

⁷⁷ Herluf Nielsen, "Kansli, Danmark", in *KLNM*, 8, col. 239–241.

⁷⁸ Johan Hvidtfeldt, "Forvaltningspolitik under Christian den Anden", *Scandia* 12 (1939), 223–241.

⁷⁹ William Christensen, *Dansk Statsforvaltning i det 15. Århundrede* (Copenhagen, 1903), p. 128.

⁸⁰ Bjørn Poulsen, "Slesvig før delingen i 1490. Et bidrag til senmiddelalderens finansforvaltning", *HT* 90 (1990), 38–63.

to the financial and political crisis following the flight of Christian II in 1523 to gain a more comprehensive picture of the income derived from various parts of the Danish realm. Under the new king, Frederick I, the chancellor, Claus Gjordsen, compiled a number of registers in the years 1523–24: these showed the revenues from castles, *len*, and towns but also covered loans, pledged estates, taxes, duties, and customs tolls.⁸¹ In some ways these accounts provide excellent sources for a study of the economy of the country but they also reveal quite clearly how limited the central control of local income actually was.

The oldest surviving central accounts to reveal the real income and expenditure of the king are those drawn up by the royal chamberlain, Christopher Parsberg, in 1447. These show that all sorts of court expenses, large and small, were funded by revenues from the royal estates as well as by taxes. From 1487 we have another account for the court but we have to move to the years 1523–24 to see a relatively complete survey of the state revenues.⁸²

The surviving accounts from the lower levels of administration come from towns and customs houses. Amongst the latter, the records of toll receipts from the Sound collected in the years 1497, 1503, and onwards are of very considerable historic interest.⁸³ The greatest part of the material, however, concerns local administration as it was carried out in the administrative areas known as *len*. Here we need to consider the Duchy of Schleswig (with Holstein) and the kingdom of Denmark separately.

The oldest Danish tax lists are from the Schleswig area and date from 1436–1438.⁸⁴ In this period, the Duke of Schleswig levied taxes (*beder*) in the western parts of his duchy. From a formal point of view these tax lists are quite sophisticated, as they contain details of settlements, the names of heads of households, the amount paid, and the total revenue collected in taxes. These records clearly do not mark a

⁸¹ “Register over de danske Slotte, Lehn og Kiøbsteder, der laa til Kongens Fadebuur i Kong Frederik den Førstes Tid, m.v.”, ed. H. Knudsen, *Nye Danske Magazin* 6 (1836), pp. 270–287; “Cantsler Claus Gjordsens Optegnelser, især om de danske og norske Lehn paa Kong Frederik den Førstes Tid”, ed. H. Knudsen, *Nye Danske Magazin* 6 (1836), pp. 288–330.

⁸² Venge, *Danmarks skatter i middelalderen indtil 1340*, p. 345.

⁸³ R.A. Øresundstoldregnskaber.

⁸⁴ For the following see Bjørn Poulsen, “Regnskabsmateriale fra slesvigske lokaladministration før 1544”, *Arkiv. Tidsskrift for arkivforskning* 14:2 (1992), 69–112.

really early stage in the keeping of fiscal accounts. A tax register from Eiderstedt dated 1456 is similarly detailed.

The first Schleswig accounts from a local district are from Flensburg *len*. They date from the years 1452 and 1457 and contain records of both revenue and expenditure. In 1474 we have the chance to glimpse an even lower level of the administration in the surviving account of a *herred* (district) compiled by the local royal officer, the *herredsfoged*.⁸⁵ In the following years these documents can be divided into tax accounts and ordinary accounts reflecting revenue from the *len*. After 1523 the accounts from the *len* were separated into lists of revenues of either cash or kind and these lists were now regularly presented for auditing at the end of the fiscal year. Extracts of these accounts exist for the 1530s. It is clear that in these years a considerable standardization was adopted in accounts procedures from all the Schleswig *len*, presumably as a consequence of demands imposed by the central government in Gottorp and allowing the books to be audited easily and effectively.

In the kingdom the oldest accounts to survive from a *len* consist of a survey of taxpayers in Skam, Funen, dated 1442. From this point onwards most of the material dates from after 1500. Among the earliest records is a list of taxpayers in Sealand who paid extraordinary taxes in 1492, and a land register from Lundenæs *len* dated 1498.⁸⁶ By the sixteenth century the maintenance of detailed accounts had clearly become indispensable in the administration of *len*. Their practical form varied, however, with much depending on the conditions under which the *len* had been given to the local officials, the *lensmænd*.

A fascinating glimpse into a complete set of administrative papers is furnished by some well-preserved material dating from Queen Christine's reign.⁸⁷ From 1496 until her death in 1521 the queen controlled considerable areas of land which she held as security for a loan she had given her husband, King Hans. This control was facilitated by the use of a number of different accounts, many of which have survived. From the queen's own household we have seven accounts covering the period 1496–1521, and containing both expenditure and revenue.

⁸⁵ Bjørn Poulsen, "Den sønderjyske herredsfoged i senmiddelalderen. Et herredsfoged-regnskab fra Sønder Gos herred 1474–75", *Sønderjyske Årbøger* 1991, 73–86.

⁸⁶ *Harsyssels Diplomatarium*, ed. Oluf Nielsen (Copenhagen, 1893), pp. 82–92; Merete Dahlerup, "Länsräkenskaper. Danmark", in *KLNM*, 11, col. 113–115.

⁸⁷ Mikkel Leth Jespersen, *På vor nådige frues vegne. Dronning Christines administration i senmiddelalderens politiske kultur*, unpublished thesis for the master degree, University of Aarhus (2005).

From her chancellery there is a cartulary running from 1504 to 1511 and containing 96 chronological entries. Some surviving letters must, however, derive from her private archive. The existing accounts belong mostly to various *len* pledged to the queen. From 1502–1511 there are five land registers from the *len* of Næsbyhoved, Funen, showing revenues and expenditures, while from the same area are a tax census and a tax account dated 1510–11 listing all the men in the *len*. The census was used to levy extraordinary taxes, while the tax account represents the fair copy presented to the central administration. From the *len* of Tranekær on the island of Langeland there are accounts for the years 1500–1511, which, in addition to revenues and expenditures, contain inventories, lists of fines paid, and accounts for tileworks. Further, there are a number of town and customs accounts from Ribe, Kolding, Odense, Assens, and Svendborg, which were also held by the queen at this point. The records of Queen Christine's administration illustrate very clearly the quantity of writing that seems to have characterized the Danish state administration around 1500.

Writing was also gaining ground in urban settings, and all late medieval towns had their own scribes. Lists of taxes, both ordinary and extraordinary, had to be maintained. The oldest of such lists is contained in the Bishop of Roskilde's Survey (*Roskildebispens jordebog*), dated 1370, in which the duties payable on land by the burgesses of Copenhagen were registered. In 1418 a register of all land transactions in the town of Stege was drawn up.⁸⁸ This register, which was maintained until 1607, is quite brief in its early entries, while a *Stadbok* from Flensburg dated 1436 functioned as a genuine register of all plots of land in the town and noted changes of ownership.⁸⁹ To the latter example we can add a register listing plots of land in Ribe and dated 1450 onwards.⁹⁰ In 1508 a large *Stadbok to Flensborg* (literally "town book") was begun in Flensburg: this contains records of borrowing against the value of individual plots. This book, which continued to be kept until 1640, illustrates the credit market which expanded in Schleswig towns, a market which was doubtless more developed there than elsewhere in the kingdom.⁹¹ Registers of the burgesses' payments to the town lord are

⁸⁸ *Stege Bys Bog 1418–1607*, ed. F. Boisen (Copenhagen, 1904).

⁸⁹ *DF*, 1, pp. 418–447.

⁹⁰ *Ribe bys jordebog*, ed. Ingrid Nielsen (Esbjerg, 1979).

⁹¹ *Das Flensburger Rentenbuch von 1508*, ed. Helga Öhberg-Rossi (Flensburg, 1991).

preserved in the town of Schleswig from the year 1406 onwards.⁹² Authentic accounts showing yearly revenues and expenditures exist for Flensburg 1438–1528, Kolding 1492–1635, Copenhagen 1505–57, and Malmø 1517–20, while a record of judgments from the latter town covers the years 1503–48.⁹³

Literacy and the laity in the Late Middle Ages

The motivation to acquire some degree of literacy could range from piety to the need to manage and calculate one's assets, so-called pragmatic literacy. There is no doubt that in the Late Middle Ages broad groups of the population were drawn towards a higher degree of literacy by the latter factor.

This type of literacy was primarily made possible by the existence of more and more professional scribes. All the town councils, all *lensmænd*, all substantial landowners, and even the local *herredsfogeder* now had their scribes. It is apparent that some practitioners, like Johannes Nielsen in the town of Horsens, mass produced hand-written books as well as writing letters.⁹⁴ However, it was even more important that many people now opted to master the art of reading and writing themselves. Beneath the old part of Copenhagen, in a street called Læderstræde, eight wax tablets have been discovered: they date from c. 1350–1400 and were apparently used by a merchant.⁹⁵ Even at an early stage, merchants had to be able to keep separate and carefully detailed accounts, but it is far from easy to establish when exactly they did this. We have to turn to the sixteenth century before we find two complete set of ledgers kept by Danish merchants, namely Namen Jansen of Flensburg, and Ditlev Enbeck of Malmø. It is not until the fifteenth century that we have fragments of correspondence written by Danish merchants, but, as the Copenhagen wax tablets show, accounts were kept in the towns

⁹² Erich Hoffmann, *Die Herkunft des Bürgertums in den Städten des Herzogtums Schleswig* (Neumünster, 1953), pp. 99–101.

⁹³ Grethe Jacobsen, "Købstadsfinanser i begyndelsen af 1500-tallet. Lyder van Fredens kæmnerregnskaber for Malmø 1517–20", *HT* 85 (1985), 210–239; *DF*, 1, pp. 476–494; *Malmø Rådstueprotokol*.

⁹⁴ Karsten Friis-Jensen, "Litteratur og bøger", in *Middelalderens Danmark* (Copenhagen, 1999), p. 331.

⁹⁵ Nationalmuseet, Copenhagen, D 9709.

from at least the fourteenth century.⁹⁶ The records kept by Namen Jensen and Ditlev Enbeck were in Low German, incidentally, and in no respect do they differ from those written in north German towns. A single archive from a simple urban dweller has also been preserved: it comprises a collection of title deeds, notes of hand, and other items that belonged to a man called Jep Jensen, who was a member of the town council at Nykøbing Falster from the year 1480.⁹⁷

Guilds maintained their own archives containing records of by-laws and privileges, but a small number of accounts kept by individual craftsmen have also survived.⁹⁸ With the accounts for the *len* of Flensburg, which date from 1452, there is a list submitted by a smith who had worked at Flensburg Castle in the previous year. It lists 89 different jobs and seems to have been written by the smith himself.⁹⁹ Another book which has survived quite by chance proves that some rural craftsmen also kept accounts: characteristically, it was not discovered in a craftsman's archive but in a royal archive. It is a small four-page booklet dated 1508 from the archive of Queen Christine and is clearly connected with the administration of the queen's *len* Tranekær, Langeland.¹⁰⁰ Apart from a comment added by an auditor it has been written with a primitive pen and turns out to be a record of all the bricks sold by a man called Per Teglslager in the summer of 1508. The account, which is divided into revenue and expenditure, can be used, of course, to throw some light on small-scale local industry but its real importance is that it shows that accounts were also kept amongst those belonging to the humbler ranks of society.

A close reading of the accounts of the *len* seems to indicate that around the year 1500, craftsmen were paid in response to invoices which they submitted. In 1509, for instance, the *len* account from Næsbyhoved includes a note concerning the shoemaker Niels Rå of Odense, who was paid three marks minus a *hvid* for shoes which he had made for people living at Næsbyhoved Castle and on the adjacent farm. This note

⁹⁶ Andersen, *Malmøkøbmanden Ditlev Enbeck*; Stadtarchiv Flensburg. Altes Archiv. Königliches Gymnasium, nr. 565.

⁹⁷ Per Ingesman, "Jep Jensens breve. Et borgerligt privatarkiv fra det 15. århundrede", *Arkiv* 12 (1988–89), 38–61.

⁹⁸ *DGLM*.

⁹⁹ RA. Sønderjyske fyrstearkiver. De schauenburgske hertuger. Sager på papir. C. Pengeregnskab for Flensborg 1452.

¹⁰⁰ On Tranekær *len* under Queen Christine, see Vilhelm Lütken, *Langelands Historie*, (Rudkøbing, 1909), pp. 66–78.

is marked quite clearly as being “on account”, *paa regenskab*, i.e. to be settled later.¹⁰¹ In 1510, when a cooper also employed at Næsbyhoved was paid eight *skilling* for bowls and barrels he had made between Easter and the day the audit was carried out, 10 August, we must believe that the same practice was in operation.¹⁰² Apparently, craftsmen in the Late Middle Ages were frequently required to document their work in some detail and for this purpose both paper and pen were necessary. There is good reason to assume that many fifteenth-century craftsmen kept some form of accounts.

Peasants also became more familiar with writing around 1500. The small administrative areas called *herreder*, as well as individual villages, began to keep their own archives. The oldest known village archive dates from the reign of King Erik the Pomeranian. In 1458, peasants from the Lolland village of Radsted came to the court of Christian I with a letter dating from “the time of King Erik”, as well as seven other documents.¹⁰³ A verdict given in 1499, when the peasants of Radsted appeared before a local court, shows that the letter from King Erik’s time was dated 1438 and that it concerned rights to a local wood.¹⁰⁴

An examination of the total source material available shows that the number of documents emanating from Danish villages grew rapidly in the following years. For the decade 1450–59 alone there is evidence of at least 10 documents from Danish village archives, although admittedly we have to go to the end of the fifteenth century to reach that figure again. However, considering the poor chances and conditions of survival these documents were exposed to, it may be concluded that by the mid-fifteenth century it was common to use written documentation in these small communities. The documents owned by the peasants were essential to prove their rights, and it is clear that they were routinely produced in courts.

Few fifteenth-century records of copyhold, *fæstebreve*, have survived but there are some. An example from the area of Schleswig dates from 1481 and shows the duties which a tenant or copyholder promised to pay his landlord. In this document the royal officer of the *len* of Tørning testifies that a peasant has rented a farm. In return the peasant must

¹⁰¹ *Næsbyhoved lens regnskaber*, p. 295.

¹⁰² *Næsbyhoved lens regnskaber*, p. 298.

¹⁰³ *Rep.* 2nd ser., nr. 894.

¹⁰⁴ *Rep.* 2nd ser., nr. 8861.

pay annually a specified quantity of butter, some cash, and a pig.¹⁰⁵ Clearly in the late medieval period at least, there are some cases where the documentation of copyhold was in the possession of the tenants.

Most important, however, was the need to document ownership of land. If we examine the archives kept by enterprising freeholders in the fifteenth century we see that for these people systematic writing was a necessity. All landowners, noblemen, and peasants could be drawn into law cases dealing with land and possession and here it was of the outmost importance to be able to document ownership. The documentation could be made by walking around one's lands with a group of respected men who thereafter took an oath on what they had seen. The owner of the land and the people who swore with him then went to the court, the *ting*, where the case was heard by specially appointed men. In order to secure this proof of ownership, a written document, a *lovhævdsbrev*, was issued. Most of the *lovhævdsbreve* from the fifteenth and sixteenth centuries have been lost but a number of them still exist because they have been moved from freehold farms to the safer preserves of the manor-house. We can say, then, that peasant archives, especially from the farms of freeholders, became common in the fifteenth century and onwards. It is also clear that country dwellers sometimes acquired their own seals. The local bailiffs, the *herredsfogeder*, and other administrators invariably had them in the fifteenth century, and during this period a large proportion of freeholders were also using seals, while even tenants can be shown to have them in a number of cases.

In Schleswig there were undoubtedly peasants who could write and some could even keep comprehensive accounts. Two early examples of this exist. One of these is an account drawn up by Walke Widdesen, the local *herredsfoged* in the small west Schleswig village of Maas around 1511 in order to register the purchase of land around his farm.¹⁰⁶ The second example is an account from the years 1544–46 written by a man named Anders Oggels from the west Schleswig village of Højer.¹⁰⁷ Both account books indicate widespread literacy in rural society but the latter example is particularly significant. Presumably Anders Oggels was a typical representative of his class and region. He was the son of a peasant and if his account had not survived the meagre records

¹⁰⁵ *Jahrbücher für die Landeskunde der Herzogthümer* 10 (1869), pp. 158–59.

¹⁰⁶ Poulsen, *Bondens penge*, pp. 78–117.

¹⁰⁷ Poulsen, *Bondens penge*, pp. 50–77.

kept by the authorities would have told us little. The book, however, gives us a vivid impression of a young man who knows a great deal about trading and goods and who is involved in a lively local economy, travelling to the islands of Rømø and Fanø, the towns of Ribe, Varde, and Hamburg, as well as the Scanian fairs.

It is not known for certain that peasants outside the economically progressive parts of Schleswig did much writing but we should certainly not exaggerate the differences between the Schleswig peasants and those in the rest of Denmark. It is difficult to imagine that the rich cattle-trading peasants known to have flourished in many parts of the country in the early sixteenth century were able to manage their affairs without some kind of book-keeping.¹⁰⁸

Schooling furthered this trend towards growing literacy. A certain amount of reading and writing undoubtedly took place in the home and at the house of the local priest but the number of local schools was also growing. In the years after 1406 we have evidence that many Danish towns had a school.¹⁰⁹ Several sources indicate that schooling was customary for boys living in towns, while in 1522 the king stressed that the sons of burgesses should learn to read, write, and reckon before they learned to be craftsmen and merchants.¹¹⁰ It is a sign of the spread of schools that a statute dated 1537 stipulated that the Danish and German schools in Danish towns should be closed and replaced in each town by a single school, where reading, writing, and reckoning should be taught. From the late fifteenth century there is no doubt that the sons of peasants also frequently attended the town schools.¹¹¹

More sophisticated education continued to take place at grammar schools and cathedral schools, where pupil numbers were greater. From here it was possible to go on to university. Before the founding of the University of Copenhagen in 1479 all university education had to be acquired abroad. However, whereas potential students in the thirteenth and fourteenth centuries had to undertake long journeys to the

¹⁰⁸ Bjørn Poulsen, "Trade and Consumption Among Late Medieval and Early Modern Danish Peasants", *Scandinavian Economic History Review* 52:1 (2004), 52–68.

¹⁰⁹ Skovgaard-Petersen, "Skole", col. 631–637.

¹¹⁰ *Malmö Rådstueprotokol*, p. 45; *DDR*, 3, p. 70.

¹¹¹ *DDR*, 3, p. 197.

universities of Paris and Prague, the establishment of universities at Rostock in 1419 and Greifswald in 1456 meant that it became much cheaper to study abroad. In the period 1451–1535 there were at least 1649 Danish students at German universities. Among these, of course, were numerous noblemen, but also some sons of burgesses and even some of peasant stock.¹¹² From its foundation in 1479 until 1536 it can be calculated that between 750 and 1500 students matriculated at the University of Copenhagen.¹¹³

The creation of a literate society

Orality and 'learning by doing' remained central to medieval man but from an early date writing gained in importance. In the eleventh century there are indications that runic writing and the use of wax tablets were quite widespread in urban milieus. The use of Latin and the possession of parchment were admittedly the domain of the church from the very start but by the thirteenth century the king and his powerful subjects had mastered this skill. In the fifteenth century, when Danish became the primary written language, it is clear that large numbers of the population were more or less literate, or at least exposed to the literacy of others.

In line with this development there was progress in the management of resources, although this should not be overestimated. The manor account mentioned in 1199 and noted above, as well as the semi-sophisticated entries in *King Valdemar's Survey*, compiled in 1231, reveal that the control of goods was deemed necessary from an early point. However, there is no doubt that the large ecclesiastical land surveys carried out from 1290 onwards represent new attempts to estimate revenues, while the account from Brink Castle dated 1388 is an early example from a rural area of a detailed account which includes both actual revenues and expenditure. The book-keeping practices followed by both rural and urban sectors of the population ran parallel. The fifteenth and sixteenth centuries are marked by rapid change, when,

¹¹² Jan Pinborg, "Danish Students 1450–1535 and the University of Copenhagen", *Université de Copenhague. Cahiers de l'Institut du Moyen-Age Grec et Latin*, 37 (1981), 70–122.

¹¹³ Pinborg, "Danish Students 1450–1535", pp. 70–122.

thanks to the use of paper, it was possible to develop comprehensive accounts. It is also in this period that we see literacy as a relatively important element in the local sphere. It is an indication of this type of literacy that from about 1500 we see certain peasants beginning to keep their own accounts.

POPULATION

Writing his *Gesta Normannorum* in the early eleventh century, Dudo, a canon of Saint-Quentin, offered this Malthusian explanation for the Danish settlement of Normandy:

the Nordic people, in particular the Danes, burn with too much wanton lasciviousness, and with singular depravity debauch and mate with as many women as they please; and so by mingling together in illicit couplings they generate innumerable children. When these have grown up, they clamour fiercely against their fathers and their grandfathers, or more frequently against each other, for shares of property; and, as they are over-many, and the land they inhabit is not large enough for them to live in, there is a very old custom by which a multitude of youths is selected by lot and expelled into the realms of other nations, to win kingdoms for themselves by fighting, where they can live in uninterrupted peace. In this way the Danes were driven out by their own people to Francia.¹

Modern historians, too, have made the ravages and later settlement of Danes in western continental Europe and England an outcome of overpopulation at home, although—unlike Dudo—they do not attempt to moralize. They have discovered Malthusian mechanisms other than unbridled sexual behaviour behind the expeditions and colonization carried out by the Danes. It has been asserted that from the ninth century the production of food could not keep pace with demographic growth because the expansion of arable took place at the expense of cattle farming. The way out of this critical situation was for young men to leave home in search of a better life abroad.² This is to turn causation

¹ *Dudo of Saint Quentin: History of the Normans*, translated by Eric Christiansen (Woodbridge, 1988), pp. 15–16.

² See, for example, Erik Arup, *Danmarks Historie*, vol. 1 (Copenhagen, 1925), pp. 105–106. Arup argued that the expansion of the arable, the beginning of which he dated to the ninth century, caused degeneration of cattle as a result of agro-technical ignorance, because the beasts were underfed and used as draught animals to pull the heavy wheel-plough. This conception is an alternative version of the theory launched by Vladimir G. Simkhovitch in his article “Hay and History” in *Political Science Quarterly* 28 (1913), 385–403 about the decline of English manorial production in the Late Middle Ages. The theory was later elaborated upon by M. M. Postan in his contribution “Medieval Agrarian Society in its Prime”, § 7 “England” in *The Cambridge Economic History of Europe*, vol. 1, ed. M. M. Postan (Cambridge, 1966), pp. 548–632. In this volume Postan explains the Malthusian check in the first half of the fourteenth

upon its head, because arable farming produces more calories per acre than animal husbandry. The expansion of arable farming discussed in the chapter on the arable land paved the way for demographic growth subsidiary the development of arable farming was a function of increasing population. References to the promiscuity of the Northmen, their fertility rites, the populousness of the north, and internal conflicts are frequent in historical literature in the Early Middle Ages, but they are obviously biased views of pagans put forward by Frankish, Italian, and German clerics.³ Modern historians using Malthusian arguments do not perhaps moralize, unlike their medieval predecessors, but rather patronize our forefathers by insisting on insoluble technological conflicts between nature and society as historical movers. In this particular context Malthusian considerations are speculative and indeed simplified explanations. Viking raids and Danish migration to Normandy and England were brought about by a multitude of causes. One important reason was the simple fact that navigation by sailing vessels was introduced into Scandinavia in the centuries before the Vikings became a serious problem around the coasts of western Europe in the late eighth century.⁴ Another more complicated, albeit obvious, reason for Scandinavian aggression was the restrictive combination of tributary, political, economic, and military structures at home compared with the relatively weak and unorganized political and military powers the Vikings met abroad.⁵

The demographic trend before 1000 is not clear at all. It is an established fact that the Viking Age witnessed new settlements. Another indication of demographic growth in 800 to 1000 and into the eleventh century is perhaps that certain settlements which had previously moved at intervals became static from around 1100. One reason for this was that in the course of time the territory linked to settlements was limited by colonization: newcomers settled on the periphery of the territory, or members of the old settlement moved out, or the old

century in the light of the agro-technical problem he believed had arisen because of the increasing disproportion between tillage and cattle farming.

³ Dubo is inspired by Jordanes, who also speaks of a densely populated north. The internal controversies between the Danes are lavishly described in *Annales Regni Francorum*, *Annales Bertiniani*, *Annales Vedastini* and other Frankish chronicles dating from the ninth and tenth centuries. The promiscuity of the Northmen is described several times by Adam of Bremen.

⁴ Bill et al., *Dansk Søfarts*, pp. 49–51.

⁵ Hybel, *Danmark i Europe*, pp. 48–55.

settlement was divided into two.⁶ On the other hand, certain evidence suggests demographic stagnation or even decline. Around the middle of the first millennium A.D. arable land declined in some areas and was taken over by woodland and this trend continued until the High Middle Ages.⁷ Whether the increase in population in the High Middle Ages had a forerunner in the Viking Age is not easy to ascertain, but it is most likely that the period 700 to 1350 experienced an accelerating population growth ratio.

Demographic expansion

In the High Middle Ages population growth characterized almost all parts of Europe, but clearly it was more marked in some places than others. In Denmark the settlement pattern and the distribution of arable, woodland, and pasture indicate that the realm was far from evenly populated. The most densely populated areas were the Scanian plain and most of Sealand, Funen, and eastern Jutland, i.e. the arable zone. In this zone the growth was probably not very extensive from the Viking Age to the fourteenth century. On the moors of mid- and west Jutland, in the marshes of Schleswig, in the woodlands of northern Sealand, and in the districts bordering Sweden, the population was far more sparse. These areas and the islands of Lolland and Falster experienced conspicuous demographic growth in the twelfth and thirteenth centuries. The most extensive population development in the High Middle Ages is detectable on the margins of arable farming and on the outskirts of the realm.

The population did not grow at an even rate from 1000 to the Black Death. Meteorological evidence suggests that the growth rate must have been moderate in the twelfth century, when famines swept northern Europe about every twenty years. In contrast, between the great European famines of 1224–26 and those of 1315–1317 the climate seems to have favoured demographic growth, perhaps even to the extent that around 1300 that population growth eased off.⁸ After 1320 the Danish population probably recovered from losses caused by the

⁶ See chapter on “Villages”.

⁷ See chapters on “Woods and Moors” and “Arable Land”.

⁸ See chapter on “Climate”.

great famine of 1315–17, until, like most other European populations, it was hit by recurrent epidemics from 1349. We shall return later to the demographic impact of these outbreaks of plague on the Danish population.

Our knowledge of the chronology associated with the expansion of villages and the founding of new ones in the High Middle Ages supports the image of the general demographic trend deduced from meteorological evidence. The settlement pattern of Falster and Lolland confirms the picture of an increasing growth rate in the thirteenth century, although it is true that the expansion of settlement on these islands after 1200 also had a political and military underpinning in the defeat of the Vends. Agricultural development in the northern part of Sealand corresponds strikingly with a significant increase in population in the thirteenth century. According to the chronicler Adam of Bremen, northern Sealand was undeveloped at the end of the eleventh century. This description corresponds quite well with our image of this part of the country as described in the chapters on arable land and villages. Throughout the High Middle Ages, clearings were particularly extensive in the vast woodlands of the eastern section of northern Sealand. Around 1070 Adam describes northern Sealand as a desolate part of the island. He states that the shortest crossing from the island to Scania is via Helsingborg, but he does not note any ferry berth or location on the Sealand side of the Sound. Elsinore is mentioned for the first time as a market town in *Kīng Valdemar's Survey* (c. 1231).⁹

Parts of Schleswig, in particular the eastern region, were densely populated before 1000. Even these districts experienced growth in the Middle Ages, for example on the peninsula of Angeln and in Schwansen. According to *Kīng Valdemar's Survey* there were many forests in the district of Fredslet and around the castle of Egernborg, south of Schwansen. The midlands and the above-mentioned woodlands in the north and south of Schleswig show many signs of expansion in the High Middle Ages. Evidence that arable land expanded at the expense of beech forests has been found on the *geest* in the midlands. Around 1200, however, settlements in the woodlands that form part of the Fredslet district of south Schleswig were still scattered. At that time a Danish magnate commented on the vast wilderness that lay between the land of the Vends and Denmark. The marshland along

⁹ *KVJ*, vol. 1, part 2, p. 83.

the west coast of Schleswig is called *Little Friesland* by Saxo. He gives a detailed topographical and ethnographical description of this region as it was around 1200. The Friesian descent of the inhabitants in the marshland is testified to by the fact that they call themselves by that name and speak that language, writes Saxo.¹⁰ The first wave of Friesian immigration seems to have hit the coastal areas of western Schleswig in the eighth and ninth centuries. The second began in the eleventh century. At that time the water level was quite low, but from 1100, when it rose, the Friesians were forced to build dikes and artificial hills, *værfter*, to safeguard their farm buildings and homes against floods.¹¹

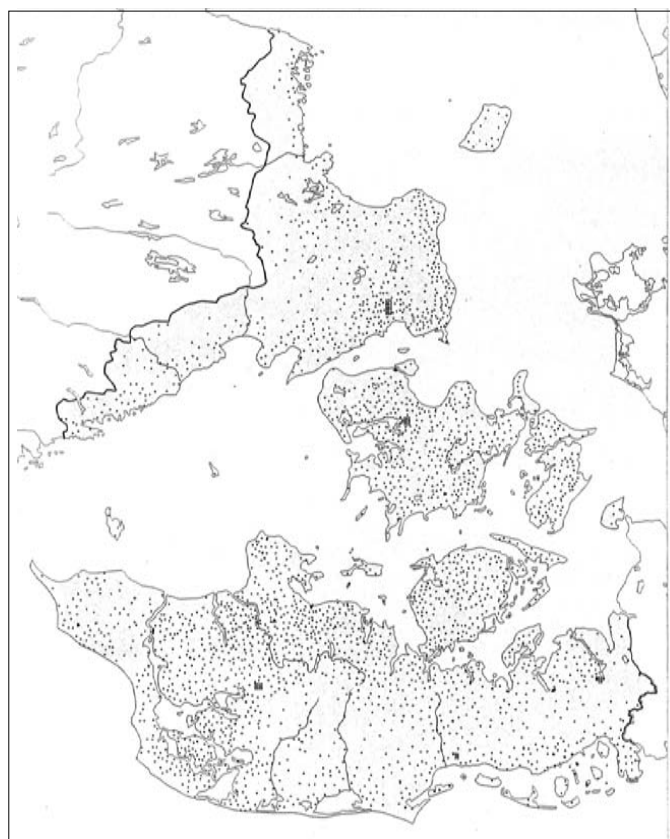
The development of settlements is an important indicator of population growth from the Viking Age to the fourteenth century. In the old settled arable zone, population growth did not lead to extensive expansion during the High Middle Ages. The woodlands and marshes, and to some extent the moors, were far more markedly influenced by population growth: they provided potential for surplus population with no (or very little) right of inheritance on the old settled arable land. The chronology and fluctuations of the expansion of settlements from 1000 to 1300 are far from clear, but the evidence indicates that the major part of the colonization in the expanding areas took place late in the High Middle Ages, i.e. in the thirteenth and early fourteenth centuries.

Church building is another, but very problematic, indicator of population growth. In the late eleventh century Adam of Bremen notes that 'Scania has twice as many churches as Sealand, that is 300 churches... while Jutland is said to have only half as many and Funen only a third', i.e. 300 churches in Scania, 150 in Jutland, 150 in Sealand, and 100 in Funen, making a total of 700 churches in Denmark.¹² If a

¹⁰ Saxo, book 14, 7,1.

¹¹ Ethelberg et al., *Det sønderjyske*, pp. 376–392.

¹² This round figure is an overestimate rather than an underestimate. Adam's inclination was no doubt to paint a constructive picture of progress in the Danish part of the mission field operating under the jurisdiction of the Archbishop of Hamburg and Bremen. However, the estimate for Jutland seems somewhat conservative, if indeed we glean any information at all about churches in this province: "Et nunc plena ecclesiis Sconia bis tantum habet in spacio quam Seland, hoc est CCCtas ecclesias, cum Seland dicatur habere dimidium, Funis terciam partem." *AB*, book 4.7. The passage is tautologous and illogical: Adam has given an account of the sees, including Jutland, already. The most recent translation of this passage has therefore restored it as follows: "Et nunc plena ecclesiis Sconia bis tantum habet in spacio quam Seland, hoc est CCCtas ecclesias, cum Jutland dicatur habere dimidium, Funis terciam partem." *Adam af Bremens kronike*, translated by Allan A. Lund, (Højbjerg, 2000), pp. 14, 204.



(Parish church)

(Parish church with uncertain location or age,
or church whose function as a parish church is
uncertain)

(before 1150)

(before 1350)

(before 1536)

(temporary town foundation, colour
indicates period)

Map 3. The distribution of medieval parish churches in Denmark

total of 150 churches in Jutland is close to the real figure for the late eleventh century, the number of churches in this province positively exploded during the subsequent two centuries. The next estimate of the number of churches in Denmark can be found in an Icelandic chronicle recording the kings of Denmark from the Viking Age to 1200. This chronicle, *Knytlinga Saga*, was probably written in the mid-thirteenth century. According to the *Saga* Jutland had 894 churches, Funen 300, Sealand 411, and Scania a mere 70.¹³ The dramatic decline in Scania described here is no less sensational than the huge increase in the number of churches in Jutland, while the modest development in Sealand and Funen seems more realistic. In this comparison Adam of Bremen is clearly the less reliable source. As we shall soon see, the account rendered in the *Knytlinga Saga* is close to reality in respect to the number of churches situated within the boundaries of present-day Denmark.

The number of churches in Denmark more than doubled from 1100 to 1300. Around 1250 the *Knytlinga Saga* claimed that there were 1535 churches in the area represented by present-day Denmark, while modern historians have estimated that there were 1586 or possibly 1845 churches before 1300.¹⁴ The *Saga*'s estimate of the total number of Romanesque churches in Denmark appears to be reliable. However, the *Knytlinga Saga* is incorrect as far as the figures for the provinces are concerned. It is little less than an accident that the *Saga* hit almost the same figure as the total found by modern scholars.¹⁵ Adam of Bremen probably exaggerated the number of Danish churches in his day, and most of the churches before 1100 were built of wood. Bearing this in mind, it is not unrealistic to suggest that close to 1500 stone churches

¹³ *Knytlinge Saga*, translated by Jens Peter Ægidius (Copenhagen, 1977), chap. 32, p. 51.

¹⁴ According to Mouritz Mackeprang 1586 of the 1673 existing Danish churches originate from the Romanesque period, i.e. before 1300. Mouritz Mackeprang, *Vore Landsbykirker: En oversigt* (Copenhagen, 1920); Muritz Mackeprang, "Middelalderlige Kirkeudvidelser," in *Festskrift til Kristian Erslev*, ed. Poul Nørlund, (Copenhagen, 1927), pp. 187–210. Aksel E. Christensen has corrected this figure to 1845 Romanesque churches. Christensen, "Danmarks befolkning", table p. 20.

¹⁵ It is not only the number of churches in Scania that the *Knytlinga Saga* assesses unrealistically. The *Saga* overestimates the number of churches in Funen, stating 300 compared with Christensen's 195. The same can be said to a lesser degree about Sealand. The *Saga* claims 411 against Christensen's 371 churches. But these differences are compensated for by the *Saga*'s underestimate of the churches in Jutland: 824 churches against Christensen's 1187. These discrepancies offset each other and explain how the *Knytlinga Saga* provides figures that are so close to the modern ones.

were erected in the two centuries from Adam's days to 1300. Although the majority of these were very small until the Late Middle Ages, when many churches were enlarged, their construction reflected quite an achievement in terms of manpower.

On average one stone church was erected for every 22.5 sq. km. of countryside in the High Middle Ages. The distribution of churches corresponded nicely with the density of settlement. In western, northern, and parts of southern Jutland there was only one church per 31 to 42 sq. km., while in eastern Jutland and on the islands of Funen, Lolland, Falster, and Sealand there was one stone church for every 15 to 20 sq. km.¹⁶ Ordinary folk probably did not use churches much in the High Middle Ages. In this period the churches were to a large extent aristocratic prestige buildings, particularly in the eastern parts of the country.¹⁷ However, the distribution of churches gives an indication of the manpower required to build a church in stone. The building of churches in the High Middle Ages conclusively illustrates demographic growth. In times marked by only a slight increase in productivity, if any at all, these projects could hardly have succeeded without a burgeoning population. Neither the growth rate nor the actual population figures can be deduced from church building in the eleventh and twelfth centuries, but the churches do indicate the density of settlements.

Life and death in the High Middle Ages

The importance of wasteland, whether situated in wetland, moorland, or woodland, in the medieval economy has already been underlined in the chapter on woods and moors. Our knowledge of human diet in the Middle Ages confirms this observation. A latrine container dating from the mid-fourteenth century has provided valuable information about the life and diet of a family in the town of Svendborg. This family seems to have had a garden with fruit trees, herbs, and hops, and they probably also had a plot of land outside the town. They ate

¹⁶ Christensen, "Danmarks Befolkning", pp. 1–57.

¹⁷ Poul Nørlund and Egmont Lind, *Danmarks Romanske Kalkmalerier* (Copenhagen, 1944), pp. 12–23; Ebbe Nyborg, "Enkeltmænd og fællesskaber i organiseringen af det romanske sognekirkebyggeri", in *Strejflys over Danmarks bygningskultur—festskrift til Harald Engberg*, ed. Robert Egevang (Copenhagen, 1979), pp. 37–64; Axel Bolvig, *Kirkekunstens Storhedstid: Om kirker og kunst i Danmark i romansk tid* (Copenhagen, 1992), pp. 23–38.

apples, pears, sour cherries, bullace, dill, coriander, flax, oats, and rye. In addition to these cultivated plants the family gathered wild strawberries, raspberries, blackberries, cowberries, sloes, hazelnuts, and bog myrtle. Unwittingly they consumed together with the cultivated plants a variety of weed seeds and plants, such as corn cockle, wild radish, and charlock. The ritual abstinence from meat on two or three days a week and throughout Lent¹⁸ and the coastal location of Svendborg are reflected in the contents of the latrine. There were no remains of meat or meat bones, but a great number of fish bones were found. The consumption of fish and shellfish in this Svendborg family was massive—primarily, of course, the essential herring, but also flatfish, eel, shrimps, common mussels, and snails. The extensive resources of the fresh water around Svendborg were also exploited: pike and perch formed part of the diet.¹⁹ Nevertheless, meat and dairy products were undoubtedly also consumed in Svendborg. The increasing importance of these commodities in the Late Middle Ages is reflected in the consumption of bacon, beef, mutton, lamb, goose, and butter in the castle and grange on the royal domain of Næsbyhoved in the years 1502, 1503, 1509, and 1510.²⁰

This particular diet, which by modern standards appears exceptionally wholesome, closely resembles the one enjoyed by villagers in Tårnby on the island of Amager in the twelfth century. Excavations in the village show that wild plants and fruit were collected and that various species of fish were eaten, together with game, poultry, pork, and beef, while barley and oats were the main crops represented in the diet, supplemented with small quantities of rye and wheat.²¹ This apparently healthy intake corresponds quite well with our impression of the physique of medieval man created by osteo-archaeological research in the last 200 years.²² The medieval inhabitants of Denmark were not very much shorter than their counterparts today. The average height of men at that time were just over 170 cm, with women only about 10 cm shorter. Neither men nor women could be considered weaklings: on the contrary the muscular attachments found on the hundreds of skeletons

¹⁸ Lent is clearly reflected in the account for the year 1388–89 on the Bishop of Ribe's estate at Brink. "Regnskabet for Ribebispens gård Brink", pp. 316–336.

¹⁹ Grethe Jørgensen, "Om kostvaner i det middelalderlige Svendborg", *Naturens Verden* (1980), 203–209.

²⁰ *Næsbyhoved lens regnskaber*.

²¹ *Tårnby*, ed. Kristiansen, pp. 53–55.

²² Pia Bennike, "Middelalderens skeletfund. En historisk oversigt over antropologiske studier af danske skeletter", *Hikuin* 17 (1987), 135–146.

examined are in general very sturdy. The population seems not to have suffered particularly from rheumatism, nor are caries found to the same degree as in later populations.²³ The state of health among adult Danes in the High Middle Ages seems to have been good. This perhaps partly explains the population growth in the period. Notwithstanding this, the life expectancy of the medieval Dane, like that of other contemporary Europeans, was very low. The apparent paradox of good health and low life expectancy is explained by child mortality and a high death rate for women of childbearing age. Based on the so-called Siler Model, studies of skeletons from medieval cemeteries suggest that life expectation decreased from about 30 years in the eleventh and twelfth centuries to below 25 years in the period 1200–1350. Sometime after 1350 a new demographic pattern evolved. Rising standards of living, including improved and less crowded housing, probably paved the way for improved life expectancy.²⁴

Information about life and death in the High Middle Ages is furnished by a number of studies of skeletons excavated in cemeteries used in this period. Osteo-archaeological studies of skeletons from the Cistercian abbey at Øm in Jutland, the Augustinian monastery at Æbelholt on Sealand, and from cemeteries in the towns of Svendborg, Næstved, Grenå, Odense, Viborg, Holbæk, etc., have yielded important knowledge.²⁵ However, two studies of rural skeleton populations from cemeteries in the villages of Löddeköpinge and Tirup are particularly valuable. These two rural cemeteries were in use in the High Middle Ages only.

²³ The height of the urban male population of Lund and Viborg was on average 171.2 cm and 172 cm respectively. On the female side the Lund material gives a slightly higher average, at 159.6 cm, than the average of 158 cm estimated from the skeletons found at Viborg. The rural population of Tirup, close to the town of Horsens in eastern Jutland, was a little shorter. The average height of men and women was 1.65 and 1.55 cm, respectively. Ove Persson, "Undersökning av människoskelett", in *Uppgrävt förflutet för PKbanken i Lund. En investering i arkeologi*, Archaeologica Lundensia 7, ed. Anders W. Mårtensson (Lund, 1976), pp. 171–174; Jesper Boldsen et al., "Således fik kongen bugt med jydernes stivsind", *Skalk*, (1985:4), 6–10; Caroline Arcini, *Health and Disease in Early Lund. Osteo-pathological studies of 3,305 individuals buried in the first cemetery area of Lund 990–1536* (Lund, 1999), p. 151.

²⁴ Jesper Boldsen, "Demografisk struktur i landsbyen Tirup", in *Hikuin* 27 (2000), pp. 233–236. These skeletons provide the only Danish source for studies of life expectancy: adequate written sources, such as court rolls and church registers, are not available until the end of the sixteenth century. Hans Henrik Appel, *Tinget, magten og æren: studier i sociale processer og magtrelationer i et jysk bondesamfund i 1600-tallet* (Odense, 1999); Hans H. Worsøe, *Slægtshistorie i Sønderjylland. En vejledning* (Aabenraa, 1984).

²⁵ Bennike, "Middelalderens skelletfund", pp. 135–146.

Löddeköpinge is a parish situated in Scania close to the Sound, while the parish of Tirup is located in eastern Jutland. The medieval cemetery at Löddeköpinge was used from some time in the mid-eleventh century to around 1150. The cemetery at Tirup had been used for two centuries when it was closed in the first half of the fourteenth century. Löddeköpinge was the larger community of the two and so far remains of 1,412 skeletons have been excavated there. At Tirup less than half that number, 620 skeletons, have been exhumed. Only survival and mortality rates can be deduced from this material. Mortality rates in both rural communities were markedly higher for women than for men, but by the age of 40 this distinction disappeared. Excessive female mortality culminated when women reached their late twenties, while from the age of 40 to 60 years mortality seems not to have been much higher than today. No woman in Tirup reached the age of 80. The high mortality rate of women meant that the average life expectancy for adult women in Tirup on their 20th birthday was 16.6 years, while the life expectancy for men at the same age was 25.2 years.

In Löddeköpinge the mean life expectancy at the age of 10 was 28 years. It is probable that only 50 per cent of children would reach the age of ten years, and possibly more than half of these deaths were related to infants less than a year old. If this is the case, the mean life expectancy at birth in eleventh- and twelfth-century Löddeköpinge was c. 20 years, four years less than the average life-span of the population in the parish of Tirup. From the Tirup material it has been estimated that on average men lived 26 years, while their female companions lived only 22 years.²⁶ In comparison with the life expectancy of the rural populations in Löddeköpinge and Tirup, the life expectancy of the urban population in Lund was greater. On average the medieval population in Lund lived 29.6 years: men for 31.3 years and women for 28.8 years. The people buried in the Augustinian cemetery at Æbelholt in northern Sealand lived even longer: men for 34 years and women for 27.7 years. These deviations in the life expectancies of rural and urban populations and people buried in a monastic cemetery presumably

²⁶ Jesper Boldsen, "Palaeodemography of two Southern Scandinavian Medieval Communities", and H. Cinthio & J. Boldsen, "Patterns of Distribution in the Early Medieval Cemetery at Löddeköpinge", *Meddelanden från Lunds universitets historiska museum*, new series 5 (Lund, 1983–1984), 107–127; Boldsen, "Demografisk struktur," pp. 233–236.

illustrate the different standards of living of these social groups.²⁷

In the Middle Ages few people died of old age, and, as in any other pre-industrial society, the infant mortality rate in the Danish communities examined here was high. As many as 50–60 per cent of all medieval deaths were not related to age and very few people, as we have seen, attained old age. The non age-related factor comprises all unpredictable causes of death, i.e. accidents, murder, war, famine, disease, etc. Medieval society was hardly more dangerous to live in than later societies with respect to the destructive potential of war and industrial, road, and other accidents, but it was nevertheless a violent environment. A cemetery in Lund reveals that twice as many skeletons dating from the Late Middle Ages show fractures compared with skeletons from the previous period.²⁸ As we have seen, famines recurred at intervals due to unfavourable climatic conditions and unsophisticated farming techniques. The demographic effect of famine was particularly grave in the twelfth century, the early thirteenth century, and the fourteenth century. However, disease retarded population growth even more than weather conditions, and from the mid-fourteenth century epidemic disease caused a dramatic demographic drop.

Health, morbidity, and mortality in the Middle Ages were mainly affected by two factors: on the one hand, commercial and cultural expansion, with the development of trade routes and the exchange of commodities, ideas, and people; and, on the other hand, poor standards of hygiene and housing. Epidemics are disseminated by people and therefore trade and exchange also facilitated the spread of disease. As we shall see in the chapters on town and markets and the commodity trade, Denmark increasingly became part of an international trade system with flourishing urban development and the spread of rural market-places. In addition the church was established and expanded her institutions throughout the country. Foreign clerics came to Denmark and the sons of Danish noblemen attended the new European universities abroad. Others went on pilgrimages and joined the crusades in the Baltic region and the Levant. For these reasons, floating infectious diseases multiplied

²⁷ V. Møller-Christensen, *Bogen om Æbelholt Kloster* (Copenhagen, 1958); Persson, "Undersökning," pp. 171–174.

²⁸ Arcini, *Health and Disease*, p. 151. Skeletons from Viking Age cemeteries indicate that, in contrast to the Middle Ages, life expectancy for men was lower than for women "and may have been caused by a particularly high level of wartime activity". Ole Jørgen Benedictow, "Demographic Conditions," in *The Cambridge History of Scandinavia*, ed. Knut Helle (Cambridge, 2003), p. 239.

dramatically in the Middle Ages and the milieu allowed them to take hold all too easily: peasant dwellings had few or no room divisions, no windows, an earthen floor, an open fireplace, and just one opening in the roof to let out smoke and allow a little light to enter. Hay was spread on the floor and also used for bedding and insulation. In this unhygienic environment human lice and fleas were common. In addition people were heavily infected with intestinal round worms due to a life spent in close contact with free-range pigs. Nor was the inherent danger of effluence from latrines or middens seeping into wells generally realized. Personal hygiene was doubtless also poor, and even if cleanliness and careful lavatory procedures were followed this would have helped little when housing itself provided the perfect playground for parasites and drinking water was jeopardized by contamination from latrines and middens. The standard of hygiene practised by medieval man and the environment he lived in were potentially severe threats to his health. These factors created a suitable environment for the development and spread of infectious diseases, contributing in great measure to the very high, and non age-related, mortality rate.²⁹

Less infectious or non-infectious diseases on the other hand seem to have had less impact on mortality. Leprosy, for example, afflicted a substantial part of the population, but the disease seems not to have been a major cause of death. The spread of *mycobacterium leprae* depends on very intimate contact, and for this reason it is usually assumed that infection occurs in childhood, whereas generally signs of the disease are not seen until years later. In Tirup as many 20–30 per cent of the adult population appear to have had clinical manifestations of the infection: these were not, of course, as horrific as the malformations seen in skeletons from the cemeteries of those religious institutions where leprosy patients were treated. It is possible that an even larger part of the population was affected. At any rate the infected in Tirup did not differ from those who with no sign of the disease in respect to the distribution of age at death, although leprosy is associated with a general decline of immune function. Leprosy was a chronic major health problem, but whether it was a serious direct cause of death is questionable. The disease put a heavy load on society because of

²⁹ Ole Jørgen Benedictow, "The Demography of the Viking Age and the High Middle Ages in the Nordic Countries", *Scandinavian Journal of History* 21 (1996), 65–170.

the loss of functions the victims suffered and this perhaps indirectly increased mortality.³⁰

The population of Denmark in the thirteenth century

That section of *King Valdemar's Survey* (c. 1230) which covers the province of Halland is unique: no other medieval Danish source offers similar opportunities for demographic research. This section of the royal survey records the number of *rustici* in seven out of the eight districts (*herreder*) in Halland.³¹ For some reason the number of *rustici* in the district of Årstad is not given; however, this district is nearly the same size as Favraas, according to the military division of the districts into two so-called *skipen* and 33 respectively 35 *hafne*. Favraas, we are told, had 1326 *rustici*, so we can assume a similar population in Årstad. If we accept this assumption, there were, according to *King Valdemar's Survey*, about 9,250 *rustici* in Halland around the year 1230.

The term *rustici* has been discussed by historians for more than a century. It has been suggested that this survey records the entire male population, but it has also been argued that only freeholders are included. Recently it has been proposed that the *rustici* were men liable for tax and/or military service, since the number of *rustici* in the survey is placed in the middle between the revenues the king drew from the district and the military division of the same area into *skipen* and *hafne*.³² We will never be certain what was meant by the term *rustici*, but the latter interpretation is plausible. If we accept this premise, the

³⁰ Jesper Boldsen, "Leprosy and mortality in the medieval Danish village of Tirup," *American Journal of Physical Anthropology* 126, 2 (2005) 159–168. In medieval Denmark about 46 leper hospitals can be identified, reflecting a desire to isolate the sufferers. For the most recent study, see Eskil Arentoft, *De spedalskes hospital. Udgravning af Sankt Jørgensgården i Odense* (Odense, 1999).

³¹ *KVJ*, vol. 1, part 1, pp. 34 ff.

³² H. M. Velschouw, "Om Folkemængden i Danmark i Midten af det 13. Aarhundrede", *HT*, series 4 (Copenhagen, 1843), 1–52; William Scharling, *Danmarks Statistik*, vol. 1 (Copenhagen, 1885), pp. 381 ff. and *Supplement* (Copenhagen, 1891), pp. 79 ff.; William Scharling, "Kirketallet og Folketallet i Danmark i det 13. Aarhundrede", *HT*, series 6,2 (1890), 262–318; Kristian Erslev, "Danmarks Folkemængde i Valdemar Sejrs Tid", *HT*, series 5,5 (Copenhagen, 1885) 516–571; Kristian Erslev, *Valdemarernes Storhedstid* (1898; repr. Copenhagen, 1972), pp. 185 ff.; Lauritz Weibull, *King Valdemars jordebok* (Copenhagen, 1916), pp. 147 ff.; Arup, *Danmarks Historie*, vol. 1, p. 200; Aksel E. Christensen, "Danmarks Befolkning"; Venge, *Danmarks skatter i middelalderen indtil 1340*, p. 108.

rustici of Halland must all have been freeholders and tenant farmers: according to provincial laws, both groups performed military service in the thirteenth century.³³ In other words a *rusticus* was synonymous with the head of a farm or smallholding. Peasant farming was the predominant economic unit throughout the medieval period.³⁴ The majority of land was divided into peasant allotments by laws of inheritance and succession based on the family, or were distributed by great landowners, religious institutions, lay magnates, or the king. It is probably the owners and lessees of peasant holdings listed in *King Valdemar's Survey* that provide the figures for Halland.

Now, it has been suggested that the holding based on a nuclear family was an outcome of the population decline following the plague epidemics.³⁵ Modern family structures did not, of course, exist in the High Middle Ages. The medieval family included a wider circle of relations, plus other members of the household who were not connected by blood at all. This extended family could consist of husband, wife and children, servants, possibly tenants or subtenants, grandparents, and unmarried sisters and brothers. The sources do not allow an estimate of the size of the average Danish household in the thirteenth century, but in pre-Reformation Schleswig it numbered perhaps five.³⁶ This is higher than the multiplication factor used when calculating the population of medieval England on the basis of the Domesday Book in a classic study which diverged from the view of the medieval extended family put forward in earlier and subsequent works.³⁷ People named in Domesday are usually taken to be the heads of households, like the *rustici* in Halland; the most common multiplier adopted to convert

³³ "The Law of Jutland", book 3, chap. 11–13.

³⁴ Nils Hybel, "Middelalderlig godsadministration i Danmark", *HT* 103 (2003), 269–298.

³⁵ Troels Dahlerup, *Gyldendal og Politikens Danmarkshistorie*, vol. 6 (Copenhagen, 1989), p. 86; Helge Paludan, *Familia og Familie. To europæiske kulturelementers måde i højmiddelalderens Danmark* (Aarhus, 1995), pp. 166 ff.

³⁶ Bjørn Poulsen, "Tjenestefolk på landet i reformationstidens Sønderjylland", *Bol og By. Landbohistorisk Tidsskrift* (1993), 7–37.

³⁷ J. C. Russell, *British Medieval Population* (Albuquerque, 1948). Russell claimed that in 1377 the average number of people liable for poll tax per household, i.e. 3.5, could be used not only to calculate the 'Domesday population', but also the total population of thirteenth-century England. Here Russell deliberately broke away from Maitland's view of the medieval extended family, and also that put forward in G. C. Homans, *English Villagers of the Thirteenth Century* (Cambridge Massachusetts, 1942). Later the 3.5 factor was criticized in J. Krause's article, "The Medieval Household: Large or Small?", *The Economic History Review*, series 2, vol. 9, no. 3 (1957), 420–432.

these single figures into hypothetical households is five, give or take a little.³⁸ A similar tentative estimate of the average Danish household in the thirteenth century is probably not completely unrealistic, albeit perhaps somewhat conservative.³⁹ Using the multiplier five the rural population of Halland in 1230 was just over 46,250.

Against this background, an attempt to estimate the total rural population of Denmark in the thirteenth century is clearly even more tentative. In the following chapter we shall see that the total number of villages in Denmark in the High Middle Ages is estimated at between 8,000 and 9,000, with the province of Halland comprising about 350. If the total is assumed to have been 8,500, Halland had 4.12 per cent of the villages in the realm. The population of Denmark can then be computed at 46,250 divided by 4.12 and multiplied by 100, i.e. 1,122,573. This calculation can be checked by using the relation between the number of rural parish churches in Halland and Denmark. Around the year 1200 there were 2,477 parish churches in Denmark, of which Halland had 86 churches, i.e. 3.47 per cent.⁴⁰ Calculated according to these premises the total rural population of high medieval Denmark would be: 46,250 divided by 3.47 and multiplied by 100, i.e. 1,332,853.⁴¹

³⁸ Postan, "England," 1966, pp. 561–563; H. C. Darby, *Domesday England* (Cambridge, 1977), p. 89; John Hatcher, *Plague, population and the English economy 1348–1530* (London, 1977), pp. 68–69; R. M. Smith, "Human resources", in *The countryside of medieval England*, eds. Astill and Grant (Oxford, 1988), pp. 189–91; H. E. Hallam, "Population movements in England, 1086–1350", in *The Agricultural History of England and Wales*, vol. 2, ed. H. E. Hallam (Cambridge, 1989), pp. 536–537.

³⁹ A multiplier of four was suggested some years ago, and by this means an estimate of the population of Halland in 1230 was brought down to 40,000. Lennart Andersson Palm, "Befolkning och försörjning i Halland före 1800-talet", in *Från Absalon till Järnmölle och Galtabäck*, ed. Sven-Oluf Olsson (Halmstad, 1999), pp. 49–51. An average medieval household of 4.5 including servants has been suggested by Benedictow, "Demographic Conditions," p. 245.

⁴⁰ The source for the number of parish churches in medieval Denmark around the year 1200 is Anders Andrén, *Den urbana scenen. Städer och samhälle i det medeltida Danmark* (Malmö, 1985), table 23. "The relationship between the number of parish churches, in towns and in the country, around 1200 in Danish provinces", p. 72.

⁴¹ The most recent attempt to estimate the peasant population of Denmark in the thirteenth century was made by Aksel E. Christensen in 1938. He also used the *rustici*/church ratio in Halland, but he read the number of *rustici* as identical with the male population. On the basis of this interpretation he estimated the rural population at about one million. Aksel E. Christensen, "Danmarks Befolkning". However, in 1977 Christensen himself rejected this figure and the reliability of the survey in the *Halland Register* for the purpose of estimating the Danish population. Inge Skovgaard-Petersen et al., *Danmarks historie*, vol. 1, p. 299.

However, the rural population was not evenly distributed throughout the country. The first chapter of this book described the landscape of Denmark, with the Danish islands, eastern Jutland, and the Scanian plain covered by extensive arable land, while woodlands characterized north-eastern Sealand, northern Scania, Blekinge, and Halland. The heaths of western Jutland and the marshes in the south-west were pastoral country. As already noted, far more calories per acre can be produced by arable farming than by cattle farming. For this reason the lands in the arable zone were the most densely populated parts of the country, a point that can be demonstrated by comparing, for example, Sealand and Møn on the one hand and Halland and Blekinge on the other. The population density on predominantly arable Sealand and Møn was very much higher than it was in the woodlands of Halland and Blekinge. Using the parish church/population ratio it can be estimated that Sealand and Møn had 27.54 people per sq. km., while Halland had 9.66 people per sq. km. and Blekinge a mere 4.4.⁴²

The chapter on towns and markets, will assume that the urban population of Denmark in the Late Middle Ages reached a proportion of more than 10 per cent of the total population of the country. Around 1530 close on 14 per cent of the households in Schleswig were urban. Furthermore, it is apparent that after c. 1400 towns grew in size and succeeded in maintaining their numbers at a time when the population in general was smaller than it was before 1350. The Late Middle Ages was a period of increasing urbanization. The ratio of urban population in the thirteenth century was obviously lower than 10 per cent, perhaps between 5 per cent and 8 per cent, but in estimating the total population the clergy and the lay aristocracy must of course also be taken into account. A conservative assessment is that the non-rural groups of the population—the town dwellers, the clergy, and the

⁴² There were 371 churches in Sealand and Møn, i.e. 14.98 per cent of the 2,477 medieval churches in Denmark. The population was thus 14.98 per cent of 1,332,853 = 199,661 people. The combined area of Sealand and Møn is 7,249 sq. km. Population density $199,661 \text{ persons} \div 7,249 \text{ sq. km.} = 27.54 \text{ people per sq. km.}$ In Blekinge there were 24 churches, i.e. 0.97 per cent. Population 0.97 per cent of 1,332,853 = 12,929 persons. Area 2,941 sq. km., population density $12,929 \text{ people} \div 2,941 \text{ sq. km.} = 4.4 \text{ people per sq. km.}$ In Halland the population was 46,250 and the area 4,786 sq. km. Population density $46,250 \text{ people} \div 4,786 \text{ sq. km.} = 9.66 \text{ people per sq. km.}$ The sources for these calculations are Andrén (1985), table 23, p. 72; "Blekinge," in *Den Store Danske Encyklopædi*, vol. 3 (Copenhagen, 1995), pp. 99–100; "Halland," *ibid.*, vol. 8, (Copenhagen, 1997), p. 170; "Møn," *ibid.*, vol. 13 (Copenhagen, 1999), p. 591; "Sjælland," *ibid.*, vol. 17 (Copenhagen, 2000), p. 234.

aristocracy—made up about 8 per cent of the rural population in the High Middle Ages. If this was the case the total population in the first half of the thirteenth century would have been 1,326,000.⁴³

Around 1230 the total area of the medieval Danish kingdom excluding the fief of Estonia was close to 78,000 sq. km., making a population density of 17.31 people per sq. km.⁴⁴ Compared with England this figure is quite modest, corresponding with the population density when the Domesday Book was compiled. In 1086 the English population was 2.00–2.25 million and the population density 15.33 to 17.24 people per sq. km.,⁴⁵ but throughout the next two centuries this increased, reaching 4.00–4.25 million in c. 1300.⁴⁶ As we have seen, a major part of this doubling of the population took place between 1230 and 1300, when the country was free from widespread famine on a pan-European scale. Thus the population of England in 1230 was perhaps 2.5–3.0 million, making a population density of 19.23–23.00 people per sq. km. If the Danish population developed in step with the English one during the thirteenth century it must have been close to 2 million when it reached its medieval peak before the great famine in 1315–1317. Thus the medieval population in c. 1300 was somewhat larger than the population around 1800 before the explosive demographic growth witnessed throughout the nineteenth century and most of the twentieth century set in.⁴⁷ Nevertheless, the population density was well below that of

⁴³ An average of the two estimates 1,122,573 and 1,332,853 = 1,230,000 + 8 per cent = 1,326,000. In the 1840s the Danish population in the High Middle Ages was estimated at 1,550,000. Velschow, *Om Folkemængden i Danmark*. A far more conservative estimate of c. 650,000 was given by Kristian Erslev, *Danmarks Folkemængde i Valdemar Sejrs Tid*. Erik Arup, in his *Danmarks Historie*, vol. 1, estimated that the Danish population in the thirteenth century was 1,250,000.

⁴⁴ The area of present-day Denmark is 43,094 sq. km., *Den Store Danske Encyklopædi*, vol. 4 (Copenhagen, 1996), p. 451. Skåne was 11,027 sq. km., *ibid.*, vol. 17, (Copenhagen, 2000), p. 374. Schleswig-Holstein was 15,771 sq. km., *ibid.*, p. 394. Halland was 4,786 sq. km., Blekinge 2,941, see note 42. In his latest book Ole Jørgen Benedictow declares that 'the size of Denmark's medieval population is not known.' Nevertheless, Benedictow suggests that the population density was perhaps 10 people per sq. km. Ole Jørgen Benedictow, *The Black Death. The Complete History* (Woodbridge, 2004), p. 159. See also Benedictow, "The Demography," p. 178 and Benedictow, "Demographic conditions," p. 247.

⁴⁵ The area of present-day England is 130,439 sq. km. *Den store Danske Encyklopædi*, vol. 5 (Copenhagen, 1996), p. 559.

⁴⁶ This is the most realistic estimate. Bruce M. S. Campbell, *English Seigneurial Agriculture 1250–1450*, (Cambridge, 2000), pp. 409, 410. The estimates of the demographic trend between 1086 and 1300 vary from 1.1–2.5 million in 1086 to 3.4–7.0 million around 1300. See note 38.

⁴⁷ Around 1800 the population in the Danish kingdom, i.e. excluding Schleswig-

England and we clearly cannot speak of overpopulation in the early fourteenth century, even though at that time poor rural labourers and smallholders represented a considerable element of peasant society.⁴⁸

The demographic downturn

Neither the famine years in the second decade of the fourteenth century nor the epidemics of the late 1340s offered relief in a Malthusian sense. It is not easy to say how dramatically these calamities affected the Danish population: even evidence that the country was afflicted by them is extremely vague. Just a few annals refer to the great famine that lasted from 1315 to 1317, and only one mentions the first outbreak of plague.⁴⁹ In the year 1348 the Chronicle of Sealand reports laconically that 'epidemic prevails in the realm.' The only further information we have is a reference to the Black Death in Halland in an open letter from the King of Sweden and Norway, Magnus Eriksson, and a comment on 'the too great shortage of people' in an ordinance issued by Valdemar IV in 1354.⁵⁰ However, it cannot be doubted that the Danish people suffered during the great famine and the plagues and that both catastrophes had an impact on demographic development.

Desertions are recorded in the survey carried out for the Canons of Aarhus Cathedral, the oldest of its type to exist.⁵¹ It dates from 1313 to 1321, but some, if not all, of the desertions listed in the survey might very well have taken place earlier, and the survey therefore provides ambiguous evidence in terms of increasing mortality. However, the fact that the survey was never finished perhaps reflects a critical situation caused by the rapid succession of bad years in the second decade of the fourteenth century. As in most other north European countries the famine caused demographic decline, but whatever the ratio of this decline the population might well have recovered before the epidemics that struck in the second part of the fourteenth century.

Holstein and the provinces lost to Sweden in the 1660s, Scania, Halland, and Blekinge, was some 930,000. Hans Christian Johansen, *Danish Population History 1500–1939* (Odense, 2002), table 4.1, p. 80.

⁴⁸ Nils Hybel, "Teorier", pp. 47–68.

⁴⁹ See chapter on "Climate".

⁵⁰ 'Epidemia regnat per regnum.', *DMA*, p. 125; "Item pro nimio defectu populi regni Dacie..." *DDR*, I, pp. 231–232.

⁵¹ *ADJ*, vol. 3.

It has been shown that the price of land decreased from about 1330, but this was caused by high interest rates and implies neither falling rents nor a population in decline. It has also been argued that churches were deserted before 1350, a fact, together with lower land prices and decreasing rents, attributable to demographic decline in the pre-Black Death centuries. A small number of churches were deserted before the plague epidemics of the mid-fourteenth century, but they do not necessarily indicate a reduced population.⁵² The population growth rate flattened or perhaps even stopped sometime after 1300, but the sources cannot support any claim that there was a sustained fall before 1350. The epidemics clearly marked a demographic turning point.

The year in which Denmark first encountered the Black Death is not known. The Sealand Chronicle probably misdates it at 1348, but it is quite certain that plague ravaged the country in 1349 and even more severely in 1350. The spread of the sickness seems to have resembled the European pattern, as did succeeding epidemics in the latter half of the fourteenth century. Studies of death registers kept at the cathedrals of Lund, Roskilde, and Ribe indicate epidemics in 1360, 1368/69 and 1379.⁵³ Although the evidence is sparse the cumulative demographic impact of these epidemics is a plausible explanation for the many deserted farms recorded after 1400. In the fourteenth century the effect of a dwindling population manifests itself clearly in the source material.

As we have seen in the chapter on the development of arable land, close to 10 per cent of the Bishop of Roskilde's land was desolate when his survey was made around 1370, during a period of successive outbreaks of plague. We also saw that other landowners suffered from a shortage of labour from the 1360s to the 1380s. The desertions on the Bishop of Roskilde's land are recorded simultaneously with reports of the ravage caused by the third epidemic. This explains the rather moderate desertion rate derived from the survey: the cumulative effects of the epidemics were not yet fully felt. When the survey was made it was still possible to find new tenants to replace those who died, provided that substantial copyholds on favourable terms were offered. Later the demographic

⁵² C. A. Christensen, "Nedgangen i Landgilden i det 14. Aarhundrede", *HT*, series 10, 1 (1930–31), 446–465; Erik Ulsig, "Befolkningsfald, landgilde og jordpriser i det 14. århundrede", *HT* 101 (2001), 1–16; Christensen, "Danmarks befolkning", pp. 40 ff.

⁵³ Ulsig, "Pest og befolkningsnedgang", pp. 21–43; Benedictow, *The Black Death*, pp. 159 ff.

decline was more heavily felt. The desertion process culminated in the first two decades of the fifteenth century, but this does not necessarily imply that the demographic development had reached its next turning point. Bubonic plague and other epidemics visited Denmark regularly after 1400. Schleswig-Holstein was ravaged by pestilence in 1406, 1420/21, 1439/40, 1448, 1450, 1451, 1464, 1483–85, 1506, 1521, 1525–29, 1532, 1537–39, 1547/48. Although in general these recurrent catastrophes were less fatal than the epidemics of the second half of the fourteenth century they clearly retarded population growth. After the epidemic of 1521 the number of taxpayers in the town of Schleswig thus decreased by some 14 per cent.⁵⁴

In the fifteenth century attempts to tie peasants to the land were made for the first time in Danish history. Unmistakeable signs of peasant bondage appear in the sources in the early 1490s and they substantiate an impression that bondage was of a recent date. The so-called *vornedskab* implied the right of the landowner to tie male persons born on his land. In 1521–1522 a royal statute was issued to ensure that *vorned* could not be sold or given away. It was a humiliation inflicted only on the peasantry of Sealand, Lolland, Falster, and Møn along with surrounding small islands, and it is open to dispute whether indeed all peasants or only the tenants of lay and ecclesiastical landowners were included.⁵⁵ Clearly these measures could have been taken by magnates for reasons other than a shortage of manpower. Bondage developed simultaneously in eastern Denmark, in Germany east of the Elbe, in Poland and in Bohemia.⁵⁶ The phenomenon should also be seen in the light of a European division of labour: from the thirteenth century onwards, with north-eastern Europe supplying the urbanized west with grain, timber, and other raw materials.⁵⁷ Nevertheless, bondage furnishes a fairly convincing indicator that from the perspective of the great landowners the country was still suffering the effects of a demographic deficit at the end of the fifteenth century.

⁵⁴ Jürgen Hartwig Ibs, *Die Pest in Schleswig-Holstein von 1350 bis 1547/48* (Frankfurt am Main, 1994), pp. 146, 206–207.

⁵⁵ Frank Pedersen, *Vornedskabets gennemførelse* (Odense, 1984).

⁵⁶ János Bak, “East-Central Europe,” in *Europe in the Fourteenth and Fifteenth Centuries*, ed. Denys Hay (London, 1989), pp. 214–62. Werner Rösener, *Agrarwirtschaft Agrarverfassung und ländliche Gesellschaft im Mittelalter. Enzyklopädie deutscher Geschichte*, vol. 13 (Munich, 1992), pp. 39–40, 109–110; Norman Davies, *God’s Playground. A History of Poland*, vol. 1 (Oxford, 1981), pp. 17, 212.

⁵⁷ See chapter on “Commodity Trade”.

It is impossible to say when this demographic decline halted. From the mid-fifteenth century there are signs of population growth. In some districts of Schleswig, particularly along the west coast, the number of taxpayers increased, and some of the islets surrounding Funen seem not to have been settled before the fifteenth century, when the fishing hamlets on the north coast of Sealand also became permanent. In addition the number of smallholders increased in several places from around 1500. After 1550 this trend was pronounced and general.⁵⁸ Similarly, in the Late Middle Ages many churches were extended and rebuilt in Gothic style, their walls increasingly decorated with paintings to communicate the gospel to the rural population. The latter indicator is not in itself a strong argument for population growth, although the expansion and rebuilding of churches obviously required manpower. It is rather a sign of an expanding economy and the spread of Christian piety in the population. In particular, extensions of the nave have been focused upon in demographic studies. In some 12–13 per cent of the rural and urban parish churches the nave was extended in the Late Middle Ages, but the exact dating of these additions is difficult. Most such extensions are found close to woods or, like the new settlements mentioned above, by the sea.⁵⁹ The new settlements, the increasing number of smallholders, and the extension and rebuilding of parish churches only possibly indicate demographic growth but clearly reflect economic growth. The dating of the demographic upturn after the decline is still disputable, but it was undeniably centuries before the population reached its pre-Black Death level.

The Danish population was greater around 1300 than in 1801, but soon after 1800 the medieval peak was surpassed. All population esti-

⁵⁸ Erland Porsmose, *Den regulerede landsby. Studier over bebyggelsesudviklingen på Fyn i tiden fra ca. 1700 til ca. 1000 e. Kr. fødsel*, vol. 2 (Odense, 1981), p. 458; Erland Porsmose, *De fynske landsbyers historie—i dyrkningsfællesskabets tid* (Odense, 1987), pp. 105–108; Nils Engberg and Søren Frandsen, “Senmiddelalderens sæsonfiskere og den første helårsbebyggelse på Sjællands nordkyst”, *Gilleleje Museum* 28 (Gilleleje, 1989), 71–90; Søren Frandsen and Erik A. Jarum, “Sæsonfiskerlejer, åresild og helårsfiskere ved Nordsjællands nordkyst”, *Gilleleje Museum* 29 (Gilleleje, 1992), 105–139; *Atlas over Fyns kyst*; Bjarne Stoklund, *Bondefiskere og strandsiddere. Studier over de store sæsonfiskerier 1350–1500* (Odense, 2000), pp. 116 ff.; Ethelberg et al. *Det Sønderjyske*, pp. 653, 711; Per Niels Kristensen, *Bønder og bebyggelse. Befolknings- og bebyggelsesudvikling, ejendomsforholdene og ugedagsbøndernes antal i Fugelse herred i det 16. og 17. århundrede* (Odense, 1977); Bjørn Poulsen, “Middelalder”, p. 177.

⁵⁹ Jes Wienberg, *Den gotiske labyrint. Middelalderen og kirkerne i Danmark* (Stockholm, 1993), pp. 86–91.

mates before 1801 are tentative. In 1645 the first tax census was taken, and it was repeated in 1660, but even on the basis of these records it is extremely difficult to calculate the population. Estimates of the population of the Danish kingdom excluding Schleswig-Holstein in the mid-seventeenth century thus vary from 500,000 to c. 800,000.⁶⁰ Sources available for demographic study in the fifteenth and sixteenth centuries are less adequate still.

In 1567 the king's castellan, Bjørn Andersen, had a survey carried out which required, among other things, that the number of *decimantes* paying tithes to every church in Sealand be recorded. It is difficult to produce demographic statistics from the survey, firstly because two categories of peasants are mentioned: *decimantes* and *garsaeder*. The latter are obscure and noted in one district only—Ølstykke—a distinction that seems to have been consistently observed. Sometimes *garsaeder* are cottars, but the term also covers ordinary tenant farmers, i.e. it is used synonymously with *decimantes*.⁶¹ Secondly, the *decimantes* from eight parishes are not accounted for, but they can be found in records of the parishes dating from 1651. These accounts include the number of peasants liable to pay tithes to parish churches on Sealand and Møn, a total of 15,442.⁶² Thirdly, glebe tenants and those tenants attached to royal castles or religious houses elude the statistics and unfortunately no account of them from the sixteenth century exists. On the other hand, such tenants are included in the national survey carried out in 1688. The total number of peasant farms in Sealand and Møn recorded in this survey was 16,156.⁶³ If we add to this the cottages listed in the 1688 survey, the number of farms and cottages in 1688 was 17,757, i.e. 2,315 more than the *decimantes* recorded in the survey of 1567.

⁶⁰ The most conservative and reliable estimate, 499,000, is also the most recent, while some historians have insisted on far higher populations, ranging from 800,000 to 900,000. Erik Arup, *Danmarks Historie*, vol. 3 (Copenhagen, 1955), p. 53; Helge Gamrath and E. Ladewig Petersen, *Danmarks historie*, vol. 2, part 2, (Copenhagen, 1980), p. 376; Alex Wittendorff, *Gyldendals og Politikens Danmarkshistorie*, vol. 7 (Copenhagen, 1989), p. 24; Johansen, *Danish Population*, p. 44.

⁶¹ *Sjællands Stifts Landebog 1567*, ed. Svend Gissel (Copenhagen, 1956).

⁶² The *garsaeder* in this estimate are interpreted as smallholders, i.e. tenants. As a consequence of this reading, the *garsaeder* are included in the total of 15,442. J. A. Fridericia, "Historisk-statistiske Undersøgelser over Danmarks Landboforhold i det 17. Aarhundrede", *HT*, series 6, 2 (1889–90), 469–622.

⁶³ *Matrikel 1688*, p. 350.

Now, the chapter on villages of this book argues that there was no significant increase in the number of farms between 1550 and the survey carried out in 1688. That being correct there were about 17,000 peasant holdings in Sealand at the close of the Middle Ages. Beside the peasant landholders, there lived a social stratum of landless cottars. In the 1688 survey most of these are statistically represented under the category 'cottages without land': 3,153 such houses are recorded in 1688. The number of landless farmhands was probably lower a century before, but it is impossible to estimate the increase from 1550 to 1688. An educated guess is that there were about 20,000 rural households in Sealand and Møn in the mid-sixteenth century. If each household numbered five, as argued above, and the ratio of urban population in Sealand, as in Schleswig, is put conservatively at close on 14 per cent, the population of Sealand and Møn in the mid-sixteenth century was about 114,000. In about 1231 we estimated the population of Sealand and Møn at c. 200,000.⁶⁴ From the thirteenth to the sixteenth centuries this part of the country consequently experienced a decrease in population of about 43 per cent.

As we have seen, the population continued to rise for more than half a century after *King Valdemar's Survey* was made. In other words the cumulative impact of the epidemics on mortality in Sealand and Møn probably reached the terrifying heights known in England and Norway, where it is believed that the population faced a decline of between 58 and 67 per cent if the pre-Black Death population is measured against the demographic growth witnessed from the mid-fifteenth century to the early sixteenth.⁶⁵ The demographic fall was barely over in the first decades of the fifteenth century when the desertion of farms and villages reputedly culminated. Possible signs of recovery from the mid-fifteenth century have been suggested above. However, from the thirteenth to the sixteenth centuries Denmark witnessed a chronic demographic deficit.

⁶⁴ See note 42.

⁶⁵ Benedictow, *The Black Death*, pp. 380 f.

Migration

It is impossible to estimate migration from Denmark in the Viking Age. The number of Danish settlers in Normandy was perhaps not overwhelming, but they made their influence felt on place-names. Of the 82 place-names of Nordic origin in Normandy, 26 are pronouncedly Danish. Behind names like Carbec, Hulbec, and Heuland are probably the Danish place-names Karrebæk, Holbæk, and Højland.⁶⁶ The number of Danes and descendants of Danes in Normandy seems to have been much lower in the tenth century than in the second half of the ninth century, but there were naturalized Danes with William the Conqueror at the Battle of Hastings in 1066. William himself was the great-great-great-grandson of the Viking chief Rollo. In the centuries before the Danish-integrated Normans came to England, Danes had settled in north-eastern and eastern parts of the country. Numerous place-names in England influenced by the Nordic language refer to such settlements. The number of Danish migrants to England and Normandy in the Viking Age is of course disputable, but it was massive enough to influence place-names where they settled and, as we have seen, to be remembered by chroniclers in posterity, for instance Dudo of Saint-Quentin, quoted at the beginning of this chapter.

In contrast it is remarkable that there are only few traces of emigration from Denmark following extensive Danish conquests in north Germany, Poland, and the Baltic countries from the mid-twelfth to the mid-thirteenth centuries, the more so as the Danish population was increasing in this period. The island of Fehmarn and the fief of Estonia are included in *King Valdemar's Survey* (1231), but it cannot be proved that Danish peasants settled in these colonies. Danish emigrants are only detectable among the aristocracy. On Fehmarn some of the king's men apparently owned newly settled villages, but it is impossible to say whether they settled Danish peasants in these villages.⁶⁷ In Denmark's most sustained period of domination in Estonia, i.e. from 1219 to 1346, the Danes settled in the nearest neighbourhood of Reval but Germans comprised a far more numerous group in Estonia as a whole.⁶⁸ The overseas political and military achievements of Valdemar

⁶⁶ Mogens Rud, *Bayeux Tapetet og slaget ved Hastings 1066* (Copenhagen, 2000), p. 29.

⁶⁷ *KVJ*, vol. 1, part 2, ed. Svend Aakjær (Copenhagen, 1980), pp. 50, 52, 55–81.

⁶⁸ Paul Johansen, *Die Estlandsliste des Liber Census Daniae* (Copenhagen, 1933).

I and his sons, Cnut VI and Valdemar II, in the regions around the southern and eastern shores of the Baltic Sea prepared the way for an eastward drift of migrants from western Germany and the Netherlands which continued throughout the thirteenth century.⁶⁹ Apparently few Danes left their country in the Middle Ages: those who did, to take up the pilgrim's staff, to go on crusade, or to study,—and were lucky enough to return alive—invariably came home to Denmark.

Evidence of foreign immigrants in Denmark, on the other hand, is conspicuous. In the twelfth century Christianity was still young, and foreign authority was crucial in developing Christian institutions. Most of the first bishops were clerks from the archbishopric of Bremen, but some were also Englishmen, for instance, the Bishop of Roskilde appointed in the 1020s. Vilhelm, the French abbot of the Augustinian monastery at Æbelholt, in north Sealand, is another well-known example of an ecclesiastical incomer. A Benedictine abbey was founded at Odense by monks from Evesham, and in the late thirteenth century English monks were still being transferred to this sister house. The Cistercian abbeys at Esrum, in Sealand, and Herrevad in Scania were established by French monks from Cîteaux and Clairvaux respectively. Several other examples of religious migration could be given, but in demographic terms this mattered little, in that the immigration of lay people was far more significant.

Laymen settled in the realm throughout the Middle Ages. The marshlands of western Schleswig were colonized by Friesians. The chronicler Saxo's very detailed ethnographic account of these people seems to suggest that they had been in that part of Schleswig which Saxo called Little Friesland for a long time when he wrote his chronicle around the year 1200. Archaeological excavations have shown that as early as the eighth century the style of building in the marshland differed substantially from that of north Schleswig and the rest of Jutland, while generally speaking it resembled the style used in the Friesian heartland along the North Sea coast between the Elbe and Rhine estuaries. However, in itself a style of building does not constitute solid proof of settlement: it might equally reflect a similar natural environment or simply be the result of cultural diffusion, but it seems plausible to assume that the first wave of Friesian immigrants arrived in the eighth century. The expansion of settlements into the low-lying parts of northern Eiderstedt in Schleswig

⁶⁹ Hybel, *Danmark i Europa*, pp. 164–175, 222.

suggests that the second wave of Friesian immigration began in the early eleventh century. By the end of the Middle Ages the Friesian language dominated the entire south-western part of Schleswig, including the islands of Sylt and Föhr. The Friesians brought know-how from their homeland to Denmark, as they doubtless also did to the Wash across the North Sea, while contributing by hard work in the marshland to the development of Danish resources.⁷⁰

The cultivation of the southern islands of Lolland and Falster probably lagged behind development in Sealand and Scania, as did the building of stone churches on these marginal islands.⁷¹ Lolland and Falster were subject to Wendish raids as late as the eleventh century, and the Slavish sounding suffix *-itze* in place-names such as Kramnitze, Tillitze, Kuditze, and Billitze, suggest some Wendish colonization on the islands too. South of Stubbekøbing on the island of Falster there are many markedly Wendish field names, and on this location the remains of a Wendish shipyard have been excavated.⁷² It is impossible to date the chronology of this immigration exactly, but it presumably took place from the tenth to the twelfth centuries. The place-names Vindebode, a medieval suburb of Roskilde north of the town on the shore of the inlet, Vindebyholt (Windebothholt), the name of a village north of Præstø in eastern Sealand, and Windebothholt, the name of a lost settlement some 10 km south of Copenhagen, recorded in the Bishop of Roskilde's Survey around 1370, mean 'the booth of the Wends' and indicate medieval Wendish trading posts in Sealand.⁷³

The immigration of Germans was even more important. It continued throughout the Middle Ages and inspired the development of commerce, urban life, and agriculture. Germans cleared and cultivated

⁷⁰ Aksel E. Christensen, "Danmarks befolkning," pp. 22 ff.; H. van der Linden, "Medieval Dutch Reclamations in Cambridgeshire and Lincolnshire: Is there a connection with the name Holland?" paper read at the International Medieval Congress (Leeds, 1995); Dirk Meier, "Landscape and settlement history in the salt marshes of Schleswig and Holstein 700–1250," paper read at the symposium "Forholdet mellem samfund, landskab og teknologi c. år 600 til 1250", at the Department of History, University of Aarhus and Centre for Viking and Medieval Studies (Århus, 2001); Ethelberg et al. *Det Sønderjyske*, pp. 331 ff., 384 ff.

⁷¹ See chapter on "Arable Land".

⁷² Bill et al., "Dansk Søfarts", pp. 106–108.

⁷³ *DD*, 4.3, no. 207; "Roskildebispens Jordebog," *Danske Middelalderlige Regnskaber*, series 3, vol. 1 (Copenhagen, 1956), p. 95; Michael Andersen, "Venderne i Roskilde", *Hikuin* 14 (1988), 49–60; Jens Ulriksen, "Vindeboder. Roskildes tidlige havnekvarter", in *Civitas Roskald. Fra byens begyndelse*, ed. Tom Christensen (Roskilde, 2000), p. 145.

land on the southern fringes of the realm. The wild forests in the southernmost part of Schleswig were colonized by German speaking people from the early twelfth century as part of a general German expansion which lasted from c. 1100 to 1300.⁷⁴ In the towns, Germans and other foreigners can already be detected in the earliest written source to survive. A statute from the town of Schleswig, dating from c. 1200, mentions a colony of foreigners, including Saxons, Friesians, Icelanders, and merchants from Bornholm. References to guests can be found in the thirteenth-century statutes from the towns of Ribe, Roskilde, Copenhagen, and Flensburg, and around 1200 the chronicler Saxo writes of Germans living in Roskilde, claiming the existence of a guild of foreigners in that town in the first half of the twelfth century.⁷⁵ At the Scania fairs, interim colonies of Germans are known from 1251, when King Abel granted the town of Rostock the same right of jurisdiction at the fairs as the citizens of Lübeck already enjoyed. Similar privileges were granted again and again to various German towns in the subsequent period. These German colonies at the Scania fairs can be dated back to at least the reign of Abel's father, Valdemar II.⁷⁶ *Pari passu* the dissolution of the Scania fairs in the decades around 1400, German merchants can be found at other locations, and they stayed longer as guests in the towns. Many Germans even became burgesses of Danish towns.

The towns along the Sound and on the island of Bornholm in the Baltic Sea are known to have had German guilds. The first to be recorded is the German Guild at Malmø, dating from 1329, the next is the Guild of the Merchants of Greifswald established at Rønne, Bornholm. The Germans also founded guilds at Køge (1450) and Ystad (1492), but the most important German guild was probably the one in Copenhagen, which must have been much older than its first known statute, which dates from 1382.⁷⁷ German and other foreign merchants were well integrated into Copenhagen society in the thirteenth century. According to the list of landowners in Copenhagen recorded in the Bishop of Roskilde's survey (c. 1370) many foreigners owned a property

⁷⁴ Ethelberg et al., *Det Sønderjyske*, pp. 381 ff.

⁷⁵ *Danmarks Gamle Købstadslovgivning*, Erik Kroman (ed.), vol. 1 (Copenhagen, 1951), pp. 8, 129–130, vol. 2 (1952), p. 9, vol. 3 (1955), pp. 4–5, 168; Saxo, book 13, 9.6, 11.2, book 14, 21.1.

⁷⁶ *DD*, 2.1, no. 38.

⁷⁷ *Danmarks Gilde- og Lavsskraaer fra Middelalderen*, C. Nyrop (ed.), vol. 1 (Copenhagen, 1899–1900).

in the town, and quite a few of them possessed more than one. It is difficult to estimate the proportion of foreign owners of properties in Copenhagen, but at least 10 per cent of the 600–700 plots of land recorded in the survey were held by foreigners.⁷⁸ The gradual decay of the Scania markets in the Late Middle Ages consolidated and expanded the colonies of foreigners, mostly Germans, in the towns around the Sound. Not surprisingly in view of their location, the German element in the towns of Flensburg and Schleswig was even greater than in Copenhagen. In 1436 about one fourth of the landowners in the town of Flensburg had German names, while 12 per cent had Friesian and 45 per cent Danish names. In 1406 about 80 per cent of the names of the landowners in Schleswig were German.⁷⁹

An influx of German noblemen began in the late thirteenth century, and soon Danish noblemen felt threatened by German competition. Section four of King Christoffer's coronation charter (1320) states that foreigners or men of another tongue were debarred from holding ecclesiastical posts. Similarly, section 14 decrees that 'no German shall have castle, fief, bailiwick or land, and [shall] definitely not be member of the king's council.'⁸⁰ Ten years later the Danish crown was in pawn to Gerhard and Johan, the Counts of Holstein, and almost all castellans were German. The immigration of German noblemen continued until reaction by the Danish nobility arose early in the fifteenth century. Thereafter, there was practically no migration of high-ranking Germans to Denmark.⁸¹ Of the 251 noble families living in Denmark in 1536 none had immigrated from Holstein in the years 1414 to 1502. The only exception was on the island of Rügen: this was owned by the Bishop of Roskilde, who installed German vassals there.⁸²

Denmark benefited greatly from immigration in the medieval period. Friesian settlers reclaimed land in the marshes of south-western Schleswig, German peasants cleared the dense forests in the extreme

⁷⁸ "Roskildebispens Jordebog", pp. 106–128.

⁷⁹ Christensen, "Danmarks befolkning"; Troels Fink, "Flensborgs Borgerskab i det 15. Aarhundrede", in *Festskrift til Knud Fabricius*, ed. Hans Fussing (Copenhagen, 1945), pp. 13–29; Erich Hoffmann, *Die Herkunft des Bürgertums in den Städten des Herzogtums Schleswig* (Neumünster, 1953), pp. 117 f.

⁸⁰ *DDR*, 1, pp. 187–188.

⁸¹ Christensen, "Danmark befolkning", pp. 49–51.

⁸² Troels Dahlerup, "Danmark", in *Den nordiske adel i senmiddelalderen. Struktur, funktioner og internordiske relationer. Rapporter til det nordiske historikermøde i København 1971* (Copenhagen, 1971), p. 55.

south of the realm, and Slavic immigrants settled on the southern islands of Lolland and Falster, but the immigration of peasants was not prolonged. In contrast German merchants were a constant factor in the development of Danish resources. They not only contributed to the development of trade and crafts, but also to urban and institutional progress. Administration, government, and the Danish tongue itself were also influenced by immigration. The Hanseatic language, Low German, in its Lübeck form played an important part in the development of Danish, being both the language of the upper classes and a source of loanwords.⁸³ The relatively large stratum of German aristocrats in Danish society from c. 1300 and the imported rulers of German origin were indeed important in the transformation of the Danish medieval kingdom into a state. Foreign influence on spiritual life and on the development of religious institutions was also considerable, especially in the High Middle Ages. Nevertheless, immigration scarcely affected demographic growth. The number of foreigners was relatively unimportant during the Middle Ages. Emigration from Denmark had still less impact on population. Migration mattered little to demographic growth in the High Middle Ages, nor indeed to its dramatic decline after 1350.

⁸³ Vibeke Winge, "Hanseater og plattysk påvirkning af dansk sprog i senmiddelalderen", in *Danmark og Europa i senmiddelalderen*, eds. Per Ingesman and Bjørn Poulsen (Aarhus, 2000), pp. 326–335.

RURAL LIFE

VILLAGES

The medieval world was primarily rural and peasant production dominated the agricultural sector. This rural world was organized in various ways. The district (*herred*) appears in the provincial laws to have constituted the jurisdictional grouping subsequently taken over by the administrative districts called *len* (literally ‘fiefs’) in step with the development of a royal administration of justice and taxation. Ecclesiastically the countryside was divided into parishes and militarily it was organised into *skipæn* and *havne*. In the Late Middle Ages the *len* became the military unit. Rural society can also be pictured in a tenurial way. Here the baseline was the manor, but the most fundamental organizing cell was the village. The basic form of settlement in the Middle Ages was made up of clusters of farms and houses reflecting the lives and deaths of their inhabitants. The village constituted a cultural and social network, but it was above all a form of economic cooperation associated with arable farming.

However, villages were not established in every part of Denmark. In the Middle Ages single farms were by no means unknown, especially on the margins of arable cultivation located in moorland, forest, fen, and undulating country. In addition social and political conditions and perhaps also religious life made an impact on the structure of settlements. It is difficult to explain, for instance, the absence of villages on the island of Bornholm without taking these factors into consideration.¹ On the other hand, individual farms were anything but characteristic of the medieval landscape. Most households clustered in groups, ranging from small hamlets comprising a few families to settlements of considerable size. Even in the pastoral west of Jutland single farms were far from dominant in every parish at the close of the Middle Ages. In some parishes individual farms and small hamlets of two farms accounted for more than ten per cent of all farms, while in others they represented the most significant settlement pattern and comprised

¹ Christina Rosén, *Stadbor och bönder. Materiel kultur och social status i Halland från medeltid til 1700-tal* (Lund, 2004), p. 61; Viggo Hansen, “Bebyggelsens historie”, *Danmarks Natur* 9, ed. T. W. Böcher et al., (Copenhagen, 1978), p. 15; Finn Ole Sonne Nielsen, *Middelalderens Bornholm*, Bornholms Amt, Teknisk Forvaltning (1998).

more than 70 per cent. Individual farms were far more common on the moors of western Jutland, of course, than in other parts of the peninsula.² Arable farming and the common field system dominated eastern Denmark, but in wooded areas of the country the percentage of farms with enclosed fields was high: in the forests of north-east Sealand the figure in some places reached 37 per cent. Similarly in Funen, where the proportion of individual farms was generally about five per cent, we see a proportion reaching more than 10 per cent in the well-wooded and undulating central parts of the island.³ Individual farms dominated the woodlands of Scania, Halland, and Blekinge, all bordering Sweden, while the rich arable land on the Scania plain was characterized by villages using a common field system. In northern Scania, on the wooded border with Sweden, the ratio of villages per square kilometre fluctuated from less than 0.03 to 0.04 per cent, while varying from 0.15 to 0.27 per cent in the south and west. In Scania as a whole 86 per cent of farms were clustered in villages, with individual farms making up a mere 14 per cent.⁴

The village community

The provincial laws provide a vivid normative image of the village community in the High Middle Ages, but it must be stressed that these laws and law books were not simply written versions of common law. They were strongly affected by canon law and the interests of a strengthened central royal power. The laws describe the village as a community of free landowners and tenant farmers, along with their servants and farmhand slaves. The villagers were united by the village meeting (*gadestævne*). According to the laws, this institution acted as a court at which minor cases were heard: by-laws are of a later date. The Statutes of Funen, dating from 1492, decreed that decisions made

² Jørgen Rydén Römer, "Bebyggelsen i Ulfborg herred i 1680'erne", in *Mellem Hav og Hede. Landskab og bebyggelse i Ulfborg herred indtil 1700*, eds. Kristian Dalsgaard et al. (Aarhus, 2000), pp. 275–301.

³ Svend Aakjær, "Landsby og Enkeltgaard", *Fortid og Nutid* 10 (Copenhagen, 1933–34), 209–228; Svend Aakjær, "Bosættelse og Bebyggelsesformer i Danmark i ældre tid", in *Bidrag til Bondesamfundets Historie*, 2, eds. John Frödin et al. (Oslo, 1933), pp. 109–182; Adam Tybjærg Schacke, *Enkelt- og enestegårde på Fyn* (Kerteminde, 2003).

⁴ Sven Dahl, *Torna och Bara. Studier i Skånes Bebyggelse- och Näringsgeografi Före 1860* (Lund, 1942), p. 5, fig. 8, p. 15.

by the village meeting should not be violated by any member of the community.⁵ Village by-laws from the seventeenth century show a well-developed form of communal self-government incorporating *gadestævne* and aldermen. The few village by-laws handed down to us from the sixteenth century indicate that by the Late Middle Ages such communal organization of Danish villages was the norm. Some village by-laws from the sixteenth century are strongly influenced by the way the town and craft guilds were organized. This characteristic is particularly true of the by-laws from Funen, while it is relatively rare in Sealand and northern Jutland. In Scania and Schleswig no by-laws marked by influence from the guilds are known. In Schleswig the oldest by-law, dating from 1543, seems rather to have been influenced by the expansion of cattle farming in the sixteenth century and the ensuing problems that arose with regard to common land. In principle the by-laws dealt with the same issues as the provincial laws, and the emergence of the former suggests that the importance of village meetings increased in the Late Middle Ages.⁶

According to the provincial laws the resources of the village were either communal or made up of privately owned subsidiary tenant land.⁷ The Law of Scania, first encoded in the second decade of the thirteenth century, states that men living together in a village could hold 'common, wood, heath, or other waste together'. Anders Sunesen, whose paraphrase of the law dates from not long after, also distinguishes between common and private woods and speaks of 'fishery in common water' and of a 'common and private fishing stream.' Private fishponds are similarly mentioned in the Law of Scania and so are private woods and private mills. The most recent of the law books, Erik's Law of Sealand, likewise stipulates that 'a man is not allowed to fell trees in common woods or fish in common ponds or lakes without permission

⁵ "Erik's Law of Sealand", book 2, chap. 53, 76, *DGLK*; "The Law of Scania", chap. 82, 148, *DGLK*; "Anders Sunesen's paraphrase of the Law of Scania", chap. 40, 93, *DGL*; *DDR*, 2, no. 44, '16, p. 166.

⁶ Thomas J. Søgaard and August F. Schmidt, *Danske Vider og Vedtægter*, vols. I–V (Copenhagen, 1904–38); Poul Meyer, *Danske Bylag* (Copenhagen, 1949); Ethelberg et al., *Det Sønderjyske*, pp. 660–662; Martin Rheinheimer, *Die Dorfordnungen des Herzogtums Schleswig* (Stuttgart, 1999).

⁷ According to provincial laws from the twelfth and thirteenth centuries, only movables and land that had been purchased independently were considered private property in a modern sense: land in general was subject to family succession.

given by all the owners.’ This law book also regulates the use of wells, whether common or private.⁸

The village field was considered in the provincial laws to constitute common land, in the sense that each villager enjoyed common rights to it. Anders Sunesen explains the workings of the system:

In every village there are certain common areas, namely roads and open spaces and certain private areas. These private areas are allocated according to ‘the rope of equality’ (*rebning*) by means of which the entire village is divided into plots of equal size, which in the mother tongue are called *bol* and by us in Latin can be called *mansi*. By this means the crofts and the land adjoining these crofts are made equal to one another.⁹

This distribution and redistribution of the land form a vital topic in numerous paragraphs of the provincial laws. The Law of Jutland, dating from 1241, declares that no one in the village can refuse *rebning*, i.e. remeasuring: ‘If a man says that his part of a *bol* does not correspond to his claim the whole *bol* must be remeasured. But if one *bol* differs from another *bol* the entire village must be remeasured.’ The law also describes the legal procedure to be followed in the event of anyone wishing to force *rebning*: in this case the plaintiff ‘must complain about unfair treatment on the part of his co-owners’.¹⁰ This normative information is substantiated by archaeological and more direct written evidence concerning the operation of a two-field system.¹¹ There is thus every reason to believe that the open-field system was introduced in the thirteenth century.

Nevertheless, according to the laws not all arable constituted part of the regulated and communally held village land. Like certain woods, heath, and wasteland, parts of the arable land could be private and fall outside the community of goods. *Ornum* and *stuf* were plots of land not subject to *rebning* and therefore presumably not included in the open-field system. The Law of Jutland stipulates that ‘if a village is to be redivided sunwise everyone must give up his occupation in all the arable unless it is *ornum* or church *stuf* or a man’s special purchase of land.’¹²

⁸ “Skånske Lov”, chap. 71, 210, 211, 214, *DGLK*; “Anders Sunesen’s Paraphrase”, chap. 114–124, *DGLK*; “Erik’s Law of Sealand”, book 2, chap. 58–59, *DGLK*.

⁹ “Anders Sunesen’s paraphrase”, chap. 26, *DGLK*; Cf. “The Law of Jutland”, book 1, chap. 54, *DGLK*.

¹⁰ *Ibid.*, chap. 45, 49, 50.

¹¹ See chapter on “Rural Resources”.

¹² “The Law of Jutland”, book 1, chap. 55, *DGLK*.

The provincial laws not only give us reason to believe that the village fields were subject to communal regulations in respect to distribution and redistribution: there are also indications of the collective planning of agriculture and the use to which the commons might be put. The Law of Scania decrees that ‘when the neighbours have sown their grain they must appoint a time for all who live in the village to enclose the field.’ Anders Sunesen’s paraphrase of the law elaborates:

Common and individual interests require that the fields be guarded by a safe fence...it is thought sensible and provident that all inhabitants in every village, when the grain is given to the earth, between them appoint a date when everyone who has not for his part fenced the sown field must pay a fine of one *oere* for his negligence.

Sunesen also explains that the responsibility of fencing lies with the owners of arable fields or meadows: thus,

when the fields and meadows adjoin the pastures of another village, which are exclusively set aside for animals, the burden of enclosure lies not with the owners of the pastures, in respect that animals shall not do any harm, but with the owners of the fields and meadows, so that they can protect their land.¹³

The peasants could apparently harvest their crops individually. However, Erik’s Law of Sealand states that ‘if a man reaps before another he is not for that reason allowed to drive his cattle into the field’. The same section of the law indicates that the peasants from two different villages sometimes stubble-grazed their cattle in common.¹⁴

Taken together these regulations suggest that the open-field system necessitated a planned sowing time, or at least that there was a time limit imposed on the sowing of individual fields as the enclosure of these areas was a collective enterprise. The provincial laws also regulate the collective grazing of cattle on stubble fields, but they include nothing that directly testifies to common ploughing, sowing, or harvesting. Rules of this kind or indications of collective work do not appear in any medieval source. It is plausible, however, that in some villages the use of the heavy and expensive wheel plough was a collective enterprise.¹⁵

¹³ “The Law of Scania”, chap. 188, *DGLK*; “Anders Sunesen’s paraphrase”, chap. 102–103, *DGLK*.

¹⁴ “Erik’s Law of Sealand”, book 2, chap. 74, *DGLK*.

¹⁵ See chapter on “Rural Resources”.

The physical structure of villages

According to the provincial laws, tofts and crofts were—like the arable fields—distributed by *rebning*, but legally their status was more private. Farm buildings were placed on the tofts and within their gates the villager and his household enjoyed special legal rights. Indeed the gate of the toft was considered a legal demarcation line.¹⁶ This plot of land could be used by the holder with a good deal more individual self-determination than was permitted in the arable fields. Archaeological excavations and various sections in the provincial laws, particularly in the Law of Jutland, show that the tofts were permanently enclosed.¹⁷ Fences guarded buildings and crops against animals and marked the boundaries of this more private area.

In case disputes arose about the distribution of land, Erik's Law of Sealand stipulates that elderly men, appointed by the district court, should swear to the boundaries between toft and road on the one hand and between toft and arable field on the other. The Law of Jutland gives a similar impression and talks of 12 plot owners having to swear the boundaries between toft and *forte*, i.e. village green, and toft and arable land.¹⁸ From these provisions it can be deduced that the toft was placed between the village green and either the road or the arable fields. This description corresponds rather well with the village structure revealed by archaeological excavations at Vorbasse, which lies between the present towns of Grindsted and Kolding in central Jutland. The total area of this unique excavation is 150,000 square metres and uncovers the development of a village over a period of 1200 years. The most recent layout of the village, probably created in the eleventh century, shows within the excavated area three large houses of the Trelleborg type on either side of an 8–10 metre wide road. Around the house east of the road were a fence, stables, and outhouses. West of the road was a farm on a large enclosed toft measuring 120 by 210 metres. The

¹⁶ Hoff, *Lov og landskab*, pp. 84–85.

¹⁷ Axel Steensberg, *Borup A.D. 700–1400* (Copenhagen 1983); Steen Hvass, "Vorbasse. The Development of a Settlement through the First Millennium A.D.", *Journal of Danish Archaeology*, vol. 2 (1983), 127–135; Palle Siemen, "Toftegrænser i det middelalderlige Allerup", *Mark og Monte*, (1991), 74–83; Palle Siemen, "Middelaldergårde og tofter på Eshjergeggen", *Hikuin* 21 (1994), 29–54. "The Law of Jutland", book 3, chap. 57, *DGLK*, for example, provides specific rules as to how the tofts must be fenced.

¹⁸ "Erik's Law of Sealand", book 2, chap. 54, *DGLK*; "The Law of Jutland", book 1, chap. 52, *DGLK*.

main building was 24 metres long with a small enclosed yard at the eastern gable and was surrounded by several buildings with potential space for up to 100 animals. Altogether there were 20 buildings on the toft of this farm, while to the north lay two others farms also on tofts measuring exactly half the acreage of the large farm.¹⁹

However, the siting of the tofts described in the provincial laws corresponds even more closely to a hypothetical model of the physical development of the village of Kyrkheddinge, Scania, in the Middle Ages and with the village structures we find in early modern maps. For example, the map drawn up in 1700 by Sammuël Kүүse of Vallby, also in Scania, illustrates quite clearly that tofts were placed between the road and the arable fields, thus corroborating the evidence found in medieval provincial laws.²⁰ The results of the archaeological excavations in and around the village of Tårnby, situated on the island of Amager close to Copenhagen, suggest a similar village structure of enclosed farms fenced on the side bordering both the village road and the arable fields.²¹ This village layout was widespread in arable areas of the country in the early modern period and was probably also common in the Middle Ages.

Before 1100 the tofts in Danish villages seems to have been quite large and were used both for pasture and arable farming. During the Middle Ages tofts were divided and arable and animal farming increasingly moved out to the common land. For this reason it has been suggested that before c. 1100 Tårnby had four tofts, each measuring from 20,000 to nearly 40,000 square metres.²² Around 1370 the village had four *mansi*, 14 farms and 24 cottages, while by 1682 there were more than 170,000 square metres under the plough.²³ Similarly, research has shown that in the eleventh century the village of Vester Vedsted, near the town of Ribe in south-western Jutland, comprised seven farms on large tofts. At the time of the Reformation there were 22 farms in Vester Vedsted.²⁴

¹⁹ Hvass, *Vorbasse*, pp. 127–136.

²⁰ *Vem behöver en by? Kyrkheddinge, struktur och strategi under tusen år*, ed. Katalin Schmidt Sabo (Lund, 2001), fig. 19, pp. 80–81, fig. 4, p. 165.

²¹ *Tårnby*, ed. Kristiansen, pp. 26, 37.

²² Ditlev Mahler, “Stabilitet—labilitet. Tanker om den middelalderlige landsby: Tårnby”, *Hikuin* 21 (1994), 85–98.

²³ “Roskildebispens Jordebog”, p. 134; *Matrikel 1688*, p. 1.

²⁴ Ebbe Nyborg, “Kirke, sognedannelse, bebyggelse”, *Hikuin* 12 (1986), 17–44; Per Kristian Madsen, “Gård, toft og bol. Arkæologisk punktundersøgelse i Vester Vedsted sydvest for Ribe”, *Hikuin* 21 (1994), 21–28.

In many villages the number of farms grew throughout the Middle Ages, and at the close of the period these villages varied greatly in size. In the national survey of 1688 there are numerous villages incorporating 20 to 30 farms, but more with 10 to 20 farms, while a great number fell into the smallest category and contained fewer than 10 farms. The large villages with their open fields were situated on fertile plains, while hamlets and single farms with other field systems were distributed on hilly ground and on the margins of the arable land.

Village development

Present-day students of toponymy agree that the origin of village names bearing the suffixes: *-um*, *-hem*, *-inge*, *-lev*, *-løse*, and *-sted* can be dated to the Iron Age, while the endings *-torp*, *-tofte*, *-bølle*, *-by*, *-holt*, *-rød*, and *-skov* indicate a later date of origin.²⁵ Although, as we shall see, this reading is perhaps questionable, it is to some extent confirmed by the fact that finds from the Iron Age frequently emerge from excavations in settlements bearing names of the former type. This at least is the case in Sealand and Funen, where such statistical investigations have been carried out.²⁶ Among the later suffixes *-torp* is the most common. Today there are more than 2,000 Danish villages with names ending in *-torp*. Based on linguistic observations and the distribution of the suffixes *-by* and *-torp* in the English Danelaw, it has been suggested that *-by*, *-tofte*, *-torp* and *-bølle* originated in the Viking Age and the Early Middle Ages, but that the suffix *-torp* was still used when new settlements were established in the fourteenth century. A good many of the *thorps* in Denmark have a Christian prefix, but they are indeed a minority of the fifth of the Danish villages made up of *thorps* or settlements in clearings. These are probably not much older than the eleventh century.

²⁵ Clausen, *Studier*; V. la Cour, *Sjællands ældste Bygder* (Copenhagen, 1927); A. E. Christensen, "Danmarks befolkning"; Kristian Hald, *Vore Stednavne* (Copenhagen, 1950); Vibeke Christensen and John Kousgård Sørensen, *Stednavneforskning 1* (Copenhagen, 1972).

²⁶ Erling Albrechtsen, "Fyns bebyggelse i oldtiden", *Fynske Aarbøger* 4, 2 (1951), 220–252; Erling Albrechtsen, "Den ældre jernalders bebyggelse på Fyn", *Kuml* (1970), 123–144; Helge Nielsen, "Det tilfældige fundstofs anvendelse i bebyggelsesarkæologien med Østsjælland som eksempel", in *Bebyggelseshistorisk metode og teknik*, ed. Henrik Thrane (Odense, 1978), pp. 83–93; Helge Nielsen, "Jernalderfund og stednavnetyper, en sammenligning af fynske og sjællandske forhold", in *Fra jernalder til middelalder*, ed. Henrik Thrane (Odense, 1979), pp. 87–98.

Some of the youngest thorps are found in Falster, an island which, as we have seen in chapter on the arable land, can hardly be said to have constituted a secure part of the Danish realm before 1200. Generally speaking, the thorps in Schleswig date from an earlier period than those in the rest of Denmark and some are quite large. The Frankish Annals provide the first written evidence of a thorp, reporting that in 804 Godfred, King of the Danes, took his fleet to Sliesthorp and later, in 808, moved merchants from the Slavonic town of Reric to Sliesthorp, which is probably identical with the town of Schleswig.²⁷

In the initial phase of arable farming, i.e. in the Neolithic period, seasonal settlements were gradually replaced by permanent ones. These settlements, however, were permanent in the sense that farms and houses occasionally seem to have been moved but only within the boundaries of the settlement territory. During the Middle Ages the settlements became fixed in their present positions, but the exact dating of this formation of the villages and the nature of the process are disputable. The results of the archaeological excavations at Vorbasse have been interpreted as indicating that between roughly 100 B.C. and 1100 A.D. the village moved no fewer than nine times within an area of one square kilometre before settling in its present location.²⁸ The medieval villages in Funen have also been thought to represent the final stage of 'wandering' before the evolution of the stable medieval village.²⁹

Nonetheless, this theory has been challenged by studies of various archaeological finds in Scania. In the pre-medieval period the settlements in this easternmost part of the country seem to have consisted of clusters of farms and dispersed individual and paired farms. Only in the Middle Ages do we meet permanent, consolidated villages there.³⁰ A somewhat similar pattern of development has recently been

²⁷ *Annales Regni Francorum*, pp. 118, 126.

²⁸ Hvass, "Vorbasse", pp. 127–136; Steen Hvass, "Årtusinders Landsbyer", *Skalk* (1984:3), 20–30.

²⁹ Torben Grøngaard Jeppesen, *Middelalderlandsbyens opståen* (1981); Torben Grøngaard Jeppesen, "Aastrup I" and "Aastrup II", *Fynske Minder* (1981), 39–72; K. Hornbech and E. Porsmose, "Herrested—en middelalderlig købstad", *Cartha 1983* (Kerteminde, 1984), 37–51; Erland Porsmose, "Middelalder o. 1000–1536", *Det Danske Landbrugs Historie 4.000 f.Kr.-1536*, vol. 1, ed. Claus Bjørn (Odense, 1988), pp. 226–231.

³⁰ Johan Callmer, "To stay or to move. Some aspects of the settlement dynamics in Southern Scandinavia in the seventh to twelfth centuries A.D. with special reference to the province of Scania, southern Sweden", in *Papers of the Archaeological Institute, University of Lund, 1985–1986*, n.s. 6 (Lund, 1986), pp. 167–208; Johan Callmer, "The process of village formation", in *The cultural landscape during 6000 years in southern Sweden—the*

deduced from archaeological excavations in Jutland, north-east of Vorbasse at Nørre Snede. On this site the pre-medieval settlement was a dispersed one, perhaps with some tendency to cluster. Consequently the dynamic of the settlement was not one of simultaneous relocation of an agglomerate village at intervals, but a very gradual relocation of farms and houses through continuous abolition and establishment of buildings until the consolidation and enlargement of the permanent, but still dynamic, medieval village of Nørre Snede.³¹

The history of a farm in the above-mentioned village of Tårnby can be followed from its foundation sometime in the twelfth century. Scholars assume that this farm marks the beginning of the medieval village community because the remains of earlier buildings excavated on the site, dating from the Viking Age and before, are dispersed east of the village, where later the fields of the medieval village would be situated. Furthermore, the medieval farm is located on a croft that is both firmly enclosed and adjacent to the village green, in marked contrast to the open structure of Viking Age farms. The same change of physical structure in farms dating from the Viking Age to the Middle Ages has also been found in Scania.³²

The origin of settlements in other villages has been examined. Excavations in the villages of Sigerslev, Holtug, Raaby, Varpelev, Hellested, and Lille Heddinge in Sealand have ascertained that their settlement structures go back to the eleventh and twelfth centuries. In the village of Rønninge, north-east Funen, continuity of settlement appears to be traceable before 1000. The earliest finds in the village of Magleby, in Sealand, are from the thirteenth century, while the oldest finds at the site excavated in Aastrup, between Fåborg and Svendborg in Funen, are from the thirteenth and fourteenth centuries.³³ These latter dates correspond fairly closely with finds of building remains in villages in Scania and Halland, as well as on the island of Falster. In these parts

Ystad Project. Ecological Bulletin, No. 41, eds. B. E. Berglund et al. (Lund, 1991), pp. 337–349.

³¹ Mads Holst, *The Syntax of the Iron Age Village. Transformations in an Orderly Community*, unpublished Ph.D. thesis (Århus, 2005), pp. 177–179, 181–209.

³² *Tårnby*, ed. Kristiansen, pp. 45–65.

³³ Jeppesen, *Middelalderlandsbyens*; Hornbech and Porsmose, “Herrested”; Lotte Hedeager, “Landsbygrundlæggelser på Stevns”, in *Landsbyer på Stevns—før og nu*, vol. 1, eds. Jens H. Nielsen, S. P. Jensen, Per Nyord, Bjørn Poulsen and Henning Poulsen (Hvidovre, 1982), pp. 15–20. Lotte Hedeager, Bjørn Poulsen and Svend Åge Tornbjerg, “Land og by—en undersøgelse af østersøkeramikens datering og spredning på Stevns”, *Hikuin* 8 (1982), 125–148.

of the realm some of the excavated remains have been dated as late as the fourteenth century, but these results do not, of course, date the founding of the villages as such.³⁴ Not all medieval villages represent the last stage in an itinerant existence.

Place-name research supports the hypothesis that villages moved periodically during the first millennium A.D. Several of the villages with archaeological indications of a medieval origin have names that bear the oldest suffixes. It is possible that they carried their old names with them as their locations changed down the centuries, although this would contradict the chronology of settlements as indicated by place-name studies.

A more convincing argument to support the likelihood that villages moved until the Late Viking Age and Middle Ages, when they became static, can perhaps be found in the village land registers of the seventeenth century, where field names like *Gammelby* and *Gammeltoft* (i.e. Oldtown and Oldcroft) occur: these names indicate that the predecessors of the present villages were located where fields are now situated. In fact, all 24 fields in Falster bearing such names reveal traces of earlier settlements, but none of these old villages can be dated before 1100. It appears, then, that they had existed for about 200 years and perhaps these were their first and only stopping places before their present locations were established.³⁵ On a few of the 73 known villages in Funen to have similar names, finds from the Viking Age suggest that the possible predecessors of the present villages are a couple of hundred years older.³⁶ The provincial Law of Jutland (1241) sets out a measure against difficulties that might arise on the break-up of a village.³⁷ This provision shows that legislation issued as late as the thirteenth century took into account the fact that villages might be moved and also that these displacements were not necessarily carried out as a process decided collectively by members of the community themselves.

Some Danish villages might have been moved within the settlement territory before finding their final and present location during the Middle Ages. However, the majority of settlements seem not to have

³⁴ Jens-Aage Pedersen, "Gammelbyernes fortolkning", *Falsterundersøgelsen*, Det nordiske Ødegårdsprojekt, publication no. 16, vol. 1, ed. Svend Gissel (Odense 1989), pp. 169–179; Carelli, *En kapitalistisk anda*, pp. 29–39.

³⁵ Bak, *Befolkning og bebyggelse*.

³⁶ Porsmose, *De fynske landsbyers*, pp. 40–41.

³⁷ "The Law of Jutland", book 1, chap. 51, *DGLK*.

been aggregated into villages before the eleventh and twelfth centuries. The development of medieval villages sprang from different starting points and displayed different dynamics, and this basically important institution in the medieval agrarian world evolved due to a multitude of reciprocal causes. A major incentive was the growing emphasis on arable farming at the expense of animal husbandry. Another reason was that in time the settlement territories became strained by demographic growth and colonization. The pastoral, individual infield-outfield farming of the dispersed settlements was unproblematic as long as there were no immediate neighbours. The more conglomerate and dense the settlements became, the more the inhabitants infringed upon each other's resources and the more the definition and regulation of rights became necessary. One solution was to cluster the settlements and consolidate land into the collectively regulated redistributive resource described above. A third factor was the escalating accumulation of landed property detectable from the eleventh century. The medieval village and the regulated village field were adequate structures for the new administrative demands produced by the rise of a class of great landowners and the creation of large landed estates.

As noted above, the medieval village was far from static. Population growth forced members of the old village communities to move out and settle elsewhere, while sometimes an old village split into two separate entities. The latter situation arose frequently, creating twin villages with first elements in their names like *Vester-* and *Øster-* (i.e. western and eastern), *Nørre-* and *Sønder-* (i.e. northern and southern), *Over-* and *Neder-* (i.e. upper and lower) and so on. The village of Kippinge, Falster, was divided in 1338 at the latest, becoming *Vester-* and *Østerkipinge*. It is remarkable to see that apparently the parish church was not moved at the same time, since it is now placed between the two villages on the site of the old village.³⁸ A comparable example of the relatively late division of a village can be seen at Horns Herred in Sealand, where Dråby parish church lies set back between the villages of *Over-* and *Nederdråby*.³⁹ The suffix *-torp* seldom appears in places where an old village has been divided into two new ones with almost identical

³⁸ *Falsterundersøgelsen*, Det nordiske Odegårdsprojekt, publication no. 16, ed. Svend Gissel (Odense, 1989), vol. 1, pp. 151, 161–62.

³⁹ Viggo Hansen, *Kulturgeografiske metoder i bebyggelsehistorien* (Copenhagen, 1979).

names, probably because it was rarely adequate to divide a relatively new village.

An assumed younger suffix does not necessarily indicate that a particular village is the offshoot of an older one. Probably only a few of the old and comparatively large *thorps* in Schleswig were settled from older villages. In most cases ‘*thorp*’ (meaning ‘offshoot’) as part of a place name is more likely to be associated with medieval *thorps*. At any rate the provincial Law of Jutland stipulates the way in which disagreements should be resolved over the division of a resource territory lying between a *thorp* and the original village—the so-called *adelby*. Sometimes, however, the territory was not divided at all. In village land registers dating from the seventeenth century there are several cases in which an old village and a *thorp* still shared the same open field system.⁴⁰ However, not every medieval *thorp* came into existence as the offshoot of an older village. The guideline offered by the Law of Jutland offering a solution to conflicts between an old village and a *thorp* explicitly applies only if ‘a *thorp* is founded in the field, and arable and meadow is shared’ between *thorp* and *adelby*, in other words a *thorp* could also be established on wasteland not controlled by a village.⁴¹

It is impossible to say how often new villages were offshoots of older settlements, as opposed to being established on wasteland by settlers coming from outside. When a village became overpopulated it could either be expanded by enclosing more land or members of the community could emigrate and establish a new settlement elsewhere. Practical considerations probably lay behind emigration, in particular the increasing distance between the village and the enlarged open fields which, combined with intensified cultivation, put a growing load on the community. The carting of manure could have been an important reason why the common field was not simply enlarged and why some of the members of a village community settled in a new location. The parish of Skamby, in northern Funen, provides a textbook example. In this parish there are two villages, Skamby and Stensby, both dating back to the Viking Age. Furthermore, there were seven settlements in the parish, six of them with names bearing the suffix *-torp*. Originally Skamby was divided into Sønderballe and Nørreballe.⁴² In the national

⁴⁰ O. Widding, *Markfællesskab og Landskifte* (Copenhagen, 1949).

⁴¹ “The Law of Jutland”, book 1, chap. 47, *DGLK*.

⁴² Karl Erik Frandsen, *Vang og tægt Studier over dyrkningsystemer og agrarstrukturer i Danmarks landsbyer 1682–1683* (Esbjerg, 1983), p. 165.

survey of 1688 the common field at Skamby was assessed at 431 *tønder land* (587 acres). The fields of Stensby aggregated at 275 *tønder land* (375 acres), while the thorps varied between a mere 103 to 351 *tønder land* each (140 acres to 478 acres).

In most cases the old medieval villages measured from 200 to 300 *tønder land* (272 to 409 acres), but the open fields attached to a good many villages were considerably larger.⁴³ The old village of Ishøj, south of Copenhagen, had 1,134 *tønder land* (1,546 acres) and Veddinge, in the district of Ods and also located in Sealand, had 1,022 (1,393 acres). In the district of Sallinge in eastern Funen several villages had quite extensive open fields. The village of Jordløse is recorded in the national survey as having no fewer than 1,275 *tønder land* (1,738 acres) of arable, while Frørup had 1,500 *tønder land* (2,045 acres), Svanninge had 1,837 *tønder land* (2,504 acres), and the common field belonging to the village of Horne was larger than the entire parish of Skamby. The open fields at Horne comprised a total area of 2,570 *tønder land* (3503 acres). The sizes of these common fields contradict the assumption that new villages were founded as a result of the increasing distance between the original village and its enlarged open fields. In these places the carting of manure seems not to have been a major concern for the community. A more important obstacle to the expansion of the common fields was that, as noted above, strangers settled on the fringes of the common field. If newcomers obtained a footing as neighbours to an old village they blocked future expansion of the common field. The creation of thorps was not always the result of a calculated attempt to reduce toil by keeping down the distance between the village and the fields: it was also the outcome of a struggle for scant resources.

In the national survey of 1688, between 2,200 and 2,300 thorps, i.e. villages with the suffixes *-rup*, *-trup*, etc., are listed within the geographical area of present-day Denmark. About 20 per cent of the villages thus had suffixes indicating that they were thorps, but how can we be sure that these villages were founded in the Middle Ages? We can be reasonably certain of this when archaeological evidence exists, or if the first element in the name is Christian or clearly a name first recorded in the Middle Ages: for example, when *kirke*-, *kors*-, biblical names and saints' names form the first element of the name. There are six villages

⁴³ *Matrikel 1688*, p. 82.

called Nielstrup (derived from Nicoulaus), 13 called Pederstrup (derived from Peter), six called Poustrup (derived from Paulus), one called Tommestrup and five called Tammestrup (all derived from Thomas), three called Bendstrup (derived from Benedict), two called Mikkelsestrup (derived from Michael), and two called Abrahamstrup: these names are all of medieval origin. In addition, the names Anderstrup (from the apostle Andreas), Davidstorp, Ibstrup (derived from Jakob), Kristrup (from Christ) and Jonstrup (from Johannes) were used. As well as biblical names, Magnus and Alexander (inspired by antiquity), and names originating in England and, in particular, Low Germany became popular in medieval Denmark. Magnus is the first element in nine villages called Mogenstrup and Monstrup, while Alexander is the first element in Alsønderup and Alexansthørp, all known from *King Valdemar's Survey* (c. 1230). The English name Edwin forms the first element in Edwinæthorp and is also known from this royal survey, but English and German were rarely used as the first element in medieval Danish place names. In general the number of thorps bearing foreign personal names is quite modest: in all, 50 to 60 villages within the boundaries of present-day Denmark are characterized in this way. Not surprisingly, Nordic personal names occur far more frequently: Thor alone forms the first element in the nomenclature of about 100 thorps.⁴⁴

The number of thorps that can be dated to the Middle Ages as a result of prefixes drawn from foreign names comprises only two to three per cent, or approximately one per cent of the total number of villages in the survey. As argued above, thorps founded in the High Middle Ages were far more numerous. Many thorps were lost in the Late Middle Ages, while in order to calculate the number of new villages founded during the High Middle Ages we have to add to the medieval thorps the many clearance villages. These are conspicuous, for example, in northern Sealand. East of a line drawn from Arresø to Ganløse there are relatively few place-names with the suffixes *-lev*, *-høj* and *-um*, and only pockets of old thorp land. On the other hand there are a number of settlement names with the suffixes *-rød*, *-holt*, and *-rum* (for example Esrum) indicating clearings.⁴⁵ As we have seen in the chapter on the

⁴⁴ Hald, *Vore Stednavne*, pp. 111 ff.

⁴⁵ Villingerød, Horserød, Asminderød, Hillerød, Langerød, Grønholt, Lønholt, Niverød, Hesselsrød, Avderød, Gunderød, Blovstrød, Birkerød, Stavnsholt, Vassingerød, Lillerød, Ebberød, Søllerød, Kollerød, Allerød, Børstingerød, Bregnerød, Hammersholt, Farum, Virum, and Nærum.

arable land, those areas most subject to medieval colonization were parts of Sealand (the forests of the north, the district around Sorø, and southern Sealand), plus mid-Jutland and the border close to Germany. In addition, the majority of the archaeological finds excavated from villages in Sealand, Funen, Falster, Scania, and Halland, which bear the old types of suffix (see above) should be dated from the period c. 1100 to the fourteenth century, i.e. the High Middle Ages. Until now there has been no evidence that these villages had previously existed elsewhere.

The aggregate and regulated village was born at the start of the Middle Ages. This nucleus of medieval agrarian society developed into a dynamic institution multiplying throughout the High Middle Ages. However, it is impossible to quantify this process of village multiplication, nor is it possible to estimate the number of villages lost in the Late Middle Ages.

The lost villages

Unlike their German and English counterparts, Danish scholars have focused their research on deserted farms rather than villages and settlements.⁴⁶ We do know, however, that around Copenhagen three out of five of the Bishop of Roskilde's villages were deserted in the Late Middle Ages. The villages of Nyby, Solbjerg, and Serridslev are listed in the survey drawn up c. 1370, but they are not mentioned in the national survey of 1688. It is no surprise that Nyby was abandoned, nor perhaps that Solbjerg suffered a similar fate. In 1370 Nyby was newly founded as a thorp alongside Solbjerg and about half the common field lay waste. But it is remarkable that 300 years later, Serridslev, situated on the outskirts of present-day central Copenhagen, had vanished. In 1379 there were not only no desolate farms in Serridslev but the villages also had the largest common fields of the Bishop's five villages in the district of Styfnis (later Sokkelund herred), which lay around his castle and the town of Copenhagen.⁴⁷ Serridslev was probably abandoned as a consequence of urban expansion rather than demographic contraction. The

⁴⁶ Hybel, "Ødelæggelser", pp. 317–335.

⁴⁷ "Roskildebispens jordebog", pp. 130–133; *Matrikel 1688*, pp. 1–2.

common land associated with the growing city of Copenhagen was at any rate established on the abandoned fields of Serridslev.

These three villages outside Copenhagen were not the only Danish villages to be relinquished in the Late Middle Ages: some literally disappeared. The physical location of Serridslev, for example, has never been found, other villages have left no written evidence of their existence. They are known only because they have left traces of their former presence in field names. On the island of Falster the field names in the eastern part of the common field of the village Sønder Tåstrup, for example, bear witness to the deserted village of Bisserup. This information in the village land register from 1682 is confirmed by finds of pottery dating from the High Middle Ages. In the western part of the common fields similar finds have been made around the field of Pederstrup. In 1682 in Sønder Tåstrup there were three original farms together with four that had been relocated from the abandoned medieval villages of Bisserup and Pederstrup. When the farms were moved to Sønder Tåstrup they kept their fields at the original location. In other words the establishment of the villages did not imply a reduction of the arable: the consequence was simply a concentration of settlement and therefore the names of the deserted villages survived in field names.

It has been shown that of the 110 settlements recorded in *Falsterlisten*, part of *King Valdemar's Survey* (1230), 20 settlements had disappeared before 1509. In most cases the deserted villages were small and the common fields belonging to some of these villages were absorbed by larger villages. The loss of villages in Falster was also counterbalanced by the founding of 29 settlements in the same period.⁴⁸ In 1688 the national survey lists 100 settlements in Falster.⁴⁹ In Schleswig something like a status quo was achieved in another way: the sandy areas west of the watershed settlements were abandoned, while several parishes were deserted as a result of a terrible flood in 1362.⁵⁰ But the retreat in western Schleswig was balanced by clearings in the eastern part of the duchy and renewed land reclamations in the west.⁵¹ It has been suggested that every fourth settlement in Funen carrying a name with the suffix *-torp* and every tenth settlement with the suffixes *-by*, *-bølle* and

⁴⁸ Gissel, *Falsterundersøgelsen*.

⁴⁹ *Matrikel 1688*, pp. 98–102.

⁵⁰ See chapter on “Marine Resources”.

⁵¹ Gregersen, *Det skæve Sønderjylland*; Ethelberg et al., *Det Sønderjyske*, pp. 538–554.

-lev were deserted before the end of the Middle Ages. As in Falster, a precise date for the disappearance of villages in Funen simply cannot be established.⁵²

In the most intensively investigated region of Sealand eight or nine villages are known to have been lost. Six of these were located within the 15 square kilometre *Oldenområde*. The remaining two, Ferslev Lille and Vejlbj Torp, were located close by. In this area most of the desolate common fields were turned into demesne and/or pasture land. The village of Ginnerup is only mentioned once, in 1456, and presumably this became a part of the demesne of Svanholm manor at a later point. Klippestrup seems to have been deserted in the second half of the fifteenth century, while in the following centuries the common fields belonging to this village were turned into pasture. Krogstrup was definitely deserted before 1456: in 1472 its common field became pasture until between 1561 and 1632, when it was reclaimed by the village of Ordrup. Kunderslev was deserted in the late fourteenth century. The very existence of Lunderup is uncertain. This village has not been located and there is no certainty as to when it was deserted. The common field of Lunderup was, like Ginnerup's, turned into a part of the demesne of Svanholm. The desertion of Ulstrup probably took place between 1329 and 1472. A rent for the Ulstrup fields was imposed on the villagers of Ferlev in the sixteenth and seventeenth centuries: whether the land was used as arable or pasture is not known.⁵³ The national survey of 1688 lists 19 substantial villages in Horns Herred, each comprising 10 to 35 farms, plus six hamlets comprising two to eight farms. In the High Middle Ages there were perhaps 33 or 34 settlements in the county, i.e. about 25 per cent of the settlements were abandoned by the Late Middle Ages. What happened in this area, however, as in Falster and Schleswig, was as much a restructuring of settlements as a clear decline.

The most carefully studied regions of Denmark seem to have lost some 20 to 25 per cent of their villages from the end of the fourteenth to the second half of the fifteenth century. In some regions the loss was even more severe, for example on the rich arable land surrounding Copenhagen. In the fertile neighbourhood of Copenhagen we saw

⁵² Porsmose, *De fynske landsbyers*, pp. 83–84; Annette Hoff and Jens Jeppesen, "Todderup. En udgravet torpbebyggelse og torperne historisk belyst," *Kuml* (Århus, 1991–92), 165–188.

⁵³ Gissel, *Hornsherredundersøgelsen*, pp. 161–194, 310–316.

above that three out of the five villages listed in the Bishop of Roskilde's survey (c. 1370) were deserted. This is remarkable, because in Horns Herred and Schleswig desertions seem to have been most widespread on the margins of arable land, i.e. in the *Oldenområde* in Horns Herred and in the *geest* and marshland of Schleswig. It is therefore apparent that the desertions of the Late Middle Ages were not related to marginal arable land alone. They were the inevitable consequence of the death tolls caused by plague epidemics, but villages were also abandoned as a result of urban expansion. This was the case in the neighbourhood of Copenhagen and elsewhere close to expanding towns such as Svendborg in Funen, Trelleborg in Scania, and Åbenrå in eastern Schleswig.⁵⁴

However, the Late Middle Ages were not a period characterized simply by desertion: new settlements were also created. As already noted in the chapter on the population, fishing hamlets on the north coast of Sealand became permanently established in the fifteenth century. Clearings along the coasts of Funen are also signs of growth in the Late Middle Ages.⁵⁵ Marine and forest resources were exploited in these parts of the country. The evidence of new settlements in Schleswig and in Falster presented above was more in line with the expansion witnessed in the High Middle Ages.

Quantifying medieval villages

The number of villages and hamlets existing in Denmark can be estimated from the national survey carried out in 1688, and because no evidence points to any serious development between the mid-sixteenth and late seventeenth centuries it is possible to put forward a tentative figure for the number of villages and hamlets in existence at the close of the Middle Ages. A village can be defined in various ways. The rude definition given to those conducting surveys in the 1680s was merely a distinction between villages and single farms as set out in paragraph 13 of the instruction to the surveyors carrying out the 1688 survey in Jutland. The instructions passed on to the surveyors in Sealand mentioned no such distinction. Here it was presumably taken for granted that all peasant farms were clustered into villages or

⁵⁴ Poulsen, "Tilbagegang og vækst", pp. 191–248.

⁵⁵ Porsmose, *De fynske landsbyers*, pp. 105–108; Crumlin-Pedersen, *Atlas*, p. 160.

hamlets. Unfortunately, the survey did not include a mapping of different types of settlement, but was set up primarily for fiscal purposes, i.e. to identify unambiguously every farm in the realm. For this reason it is impossible to discern a more precise definition of settlements than the simple distinction between single farms and clusters of two or more farms already noted in the survey. Even then we are confronted with a problem, because in this survey the distinction we find is between common fields and/or common pastures (not necessarily shared by peasants living together in villages), and single farms.⁵⁶ In the parish of Madum in Ulfborg Herred, western Jutland, for example, all the farms except one are shown in the survey as just one settlement, a village, despite the fact that they were scattered throughout the parish: the reason for this was that they shared a common field.⁵⁷

In the national survey of 1688, 5,754 settlements of two or more farms sharing common fields or common pasture are recorded. Usually Scandinavian scholars define a hamlet or village as a cluster of three or more farms. In this survey, 5,118 such settlements are recorded. It is therefore reasonable to conclude that by the end of the Middle Ages there were some 5,000 hamlets and villages in the parts of Denmark covered by the survey. About 20 years before the national survey was made, the rich eastern part of the medieval realm, comprising Scania, Halland, and Bleking, was lost to Sweden. Neither the Duchy of Schleswig nor the island of Bornholm was covered by the survey. Apart from Bornholm, where they did not exist, villages in these provinces must, of course, be taken into account in assessing the total number of medieval Danish villages in existence.

On the basis of a tithe survey carried out in 1651 it is possible to estimate the number of hamlets and villages in Scania. At that time the mean number of villages with more than three farms was 0.11 per square kilometre.⁵⁸ The area of Scania is 11,027 square kilometres, making a total of just over 1,200 hamlets and villages in this province at the time at that time. This number was little different a century before. The settlement of Scania varied a great deal from place to place, but in general the province was not as densely settled with hamlets and villages as the Danish isles were. The areas of Sealand and Funen are

⁵⁶ *Martrikel 1688*, p. 8.

⁵⁷ Rømer, "Bebyggelsen," p. 277.

⁵⁸ Dahl, *Torna*, p. 14.

7,031 and 2,985 square kilometres respectively. In 1688 the former had 1,364 settlements and the latter 575. These two islands therefore both had 0.19 settlements per square kilometre. Halland and Blekinge were even more sparsely populated than Scania. In 1680 Blekinge had 214 settlements each comprising more than three farms.⁵⁹ The present area of Blekinge is only 2,941 square kilometres, making a ratio of 0.07 settlements per square kilometre. The ratio was little higher in Halland, an area covering 4,786 square kilometres. There were thus perhaps some 350 villages in Halland in the Late Middle Ages. Like northern Scania, these border provinces had comparatively more individual farms than were seen on the rich arable land of the Danish isles and the Scania plain. Accordingly in Halland and Blekinge there were also very few parish churches. Around 1200 there were 86 parish churches in Halland and a mere 24 in Blekinge, i.e. 56 square kilometres per church in Halland and 123 square kilometres per church in Blekinge. In contrast there were 395 parish churches in Scania or 28 square kilometres per church.⁶⁰

It is possible to estimate the number of hamlets and villages in Schleswig from surveys and registers of taxpayers drawn up in the sixteenth century. If we define a village once more as at least three farms, there were 288 villages in the north-east, i.e. east of the watershed and north of the present border between Denmark and Germany and including the isles of Ærø and Als.⁶¹ There were 213 villages in north-west Schleswig, 301 in the south-east including the isle of Femårn and 240 in south-west Schleswig, including the isles of Föhr and Sylt, making a total of 1,042 hamlets and villages in Schleswig at the close of the Middle Ages. This figure is tentative, of course. If we include settlements of two farms shared by more than two farmers, for instance, a fairly common arrangement in the western parts of the province, at least 100 hamlets could easily be added to the total.⁶²

⁵⁹ Sven Björnsson, *Blekinge. En studie av det blekingska kulturlandskabet* (Lund, 1946), table I, pp. 284–288.

⁶⁰ The source for the number of parish churches about 1200: Andrén, *Den urbana scenen*, table 23 ‘The relationship between the number of parish churches, in towns and in the country, around 1200 in Danish provinces’, p. 72.

⁶¹ The watershed divides Jutland, from Viborg in the north to Rendsburg in the south.

⁶² At my request Carsten Porskrog Rasmussen kindly carried out this count on the basis of the sources used in chapter three of his book *Rentegods og hovedgårdsdrift. Godsstrukturer og godsøkonomi i hertugdømmet Schleswig 1524–1770* (Aabenraa, 2002).

Using these estimates it can be surmised that in the Late Middle Ages there were some 5,000 settlements in Jutland, Funen, and Sealand and their surrounding small islands; 1,200 in Scania, 350 in Halland, 214 in Blekinge, and around 1,200 in Schleswig, making a total of about 8,000 hamlets and villages in Denmark. It is difficult to say how many settlements there were before the desertions witnessed in the Late Middle Ages, because the losses have only been studied thoroughly in certain regions. Furthermore, as we have seen, an estimate of the number of villages abandoned will vary from place to place in the areas examined. An educated guess is that there were between 8,000 and 9,000 hamlets and villages in Denmark in the first half of the fourteenth century.

It is not possible to say how many villages were lost in the Late Middle Ages. The scale of late medieval desertions seems not to have been dramatic, however, especially among large and medium-sized villages, although many smaller settlements, among them the so-called *thorps*, were lost.

MANORS

Large landed estates existed in Denmark before 1100, but we do not know how many there were, nor is it possible to form any idea of their size. Rich settlements from the Iron and Viking Ages have been found, but none of these finds indicates an accumulation of land into large estates.¹ In the late eleventh century, Adam of Bremen describes the estates that had belonged to Bishop Odinkar of Ribe some fifty years before, but this information is dubious.² We have no reason to believe that the accumulation of large estates was widespread before the twelfth century. During the High Middle Ages a class of great landowners evolved and by the end of the Middle Ages some 90 per cent of the land was concentrated in the hands of this exclusive elite.

Indications of large-scale agrarian production can be found in the sources from the second quarter of the twelfth century and this production seems to have become increasingly important over the next two centuries. The peasant farm, however, was still the dominant element in agricultural production. In the High Middle Ages most manors were run by servants and wage-labourers: forced labour was not particularly important and in most cases manors were farmed out. In the Late Middle Ages manorial production encountered a setback. A system comparable to the 'classic' western European manorial system did not unfold in Denmark until the end of the Middle Ages and it is a matter of dispute whether it spread in the second half of the sixteenth century or not until the seventeenth century.³ It is not possible to calculate the proportion of the peasantry liable for labour service until about 1770, but nevertheless in the sixteenth and seventeenth centuries more peasants than before seem to have been burdened with forced labour. These obligations were not severe until about 1650. Nor in the period up to

¹ Lars Jørgensen, "Manor and market at Lake Tissø in the sixth to eleventh centuries: the Danish productive sites", in *Markets in early medieval Europe: trading and 'Productive Sites' c. 650–850*. eds. Tim Pestell and Catharina Ulmschneider (Oxford, 2003), pp. 175–207.

² *AB*, book 2:36, 49.

³ Jens Villiam Jensen, "Fra fæstegodssystem til hovedgårdssystem. Det danske gods-system i senmiddelalder og renæssance", *Danmark i Senmiddelalderen*, eds. Per Ingesman and Jens Villiam Jensen (Århus, 1994), pp. 123–142.

1650 are there signs of drastic enlargement of the demesnes or any increase in the number of manors in the kingdom.⁴ In the Duchy of Schleswig expansion in the second half of the sixteenth century was followed by a phasing out of manorial production in the first three decades of the seventeenth century.⁵

Landed Estates

The development of landed estates in the Middle Ages is closely related to the advance of religious institutions. In the eleventh century Christianity in Denmark was still young. The first Danish sees, of Hedeby/Schleswig, Ribe and Århus, all in Jutland, are mentioned in 948 and again in 965.⁶ In the course of the next hundred years the number of Danish bishoprics increased and sees were established on the islands as well.⁷ The first monastery in Denmark was at Dalby in Scania and was founded c. 1070.⁸ In 1103–04 the Danish church was placed under its own archbishop, with his seat at Lund. The Cistercians founded the first monastery at Herrevad in Scania in 1144 and by 1200 another eight Cistercian monasteries had been established in Denmark.⁹ This is just one example of how the expansion of religious institutions accelerated in the twelfth century, and is testified to by the increasing number of donations, deeds, and charters handed down to us from this century, a development which makes it possible to study the history of landed estates in some detail.

Around 1138 a canon of Roskilde Cathedral recorded in his chronicle that back in the early 1070s Estrid, the mother of King Svein, had given 50 *mansi* to the church at Roskilde.¹⁰ The oldest surviving Danish deed, dated 1085, records Cnut IV's donation of 52 *mansi* in Sealand

⁴ Gunnar Olsen, *Hovedgård og bondegård. Studier over stordriftens udvikling i Danmark i tiden 1525–1774* (1957; repr. Copenhagen, 1975), pp. 149–150, 289–301, 314–325, 350–355.

⁵ Rasmussen, "Rentegods", pp. 204–235, 277–318.

⁶ *DD*, 1.1, nos. 319, 330.

⁷ *AB*, *Descriptio Insularum Aquilonis* 3, 7–9.

⁸ Dalby was originally a bishopric, but only for a short period. In 1070 it was transformed into an Augustinian monastery. During the last thirty years of the eleventh century monasteries were established at Roskilde, Ringsted, Slagelse, Lund, Schleswig and Odense. "Chronicon Roskildense", p. 23; *DD*, 1.2, no. 24.

⁹ Brian McGuire, *The Cistercians in Denmark* (Kalamazoo, 1982).

¹⁰ *SM*, 1, p. 23.

and Scania to the cathedral then under construction at Lund. Some of the land had been given to the king *pro pace sua* by various individuals before it was handed over to the chapter. The donation comprised land in a number of villages in Scania, on the island of Amager and in Sealand, while in four cases it may be justified to speak of major estates. In Herrestad the king gave eight *mansi*, in the village of Sundbyøster five, in the village of Brøndby three, and in each of the villages of Lilla Uppåkra and Uppåkra four and a half *mansi*.¹¹ The deed gives us reason to believe that more land of this kind was in the hands of lay landowners at an even earlier date. In addition it proves that at the turn of the eleventh century substantial estates were owned by the king and lay lords.

Some lay magnates could afford to endow large estates to finance the founding of a monastery. In 1136 Peder Bodilsen, his mother, and two brothers, Hemming and Jørgen, furnished the new Benedictine monastery at Næstved, Sealand, with one and a half villages, woods, and a mill, together with twelve *mansi*. According to the Roskilde Chronicle, Peder Bodilsen was not only an outstandingly wealthy man but also much venerated, with a powerful influence on church affairs.¹² The estates of the lay magnate families in Sealand are fairly well recorded. Members of the Hvide Family founded a Benedictine abbey at Sorø in the 1140s and were the main benefactors when this house was handed over to the Cistercians in 1161. From this institution we have *Liber Donationum Monasterii Sorensis*, one of the best sources available for the study of Danish landownership in the twelfth and thirteenth centuries.¹³ Studies of this document have substantiated the fact that members of the Hvide Family originally owned more than half the land in the district around Sorø.¹⁴

It appears that certain people with connections to the Hvide Family owned estates in Scania too. On his death in the mid-thirteenth century, a certain *homo nobilis* by the name of Peder Ebbesen thus bequeathed to the church in Lund a *mansio*, twelve peasant farms, additional plots of

¹¹ *DD*, 1.2, no. 21.

¹² *DD*, 1.2, no. 64; *Chronicon Roskildense*, pp. 26, 32.

¹³ *SRD*, 4, pp. 463–531.

¹⁴ Poul Nørlund, "Jorddrotter på Valdemarstiden", in *Festskrift til Kristian Erslev den 28. December 1927 fra danske Historikere*, ed. Poul Nørlund (Copenhagen, 1927), pp. 141–170; Erik Ulsig, "The Estates of Absalon and the Hvide Family", in *Archbishop Absalon and his World*, eds. Karsten Friis-Jensen and Inge Skovgaard-Petersen (Roskilde, 2000), pp. 89–101.

land, and a mill in Scania.¹⁵ Less is known about lay estates in Scania, Funen, and Jutland than in Sealand. From Funen we have only one charter stating that in 1183 King Cnut VI bought land from Astrad Trugilson valued at 20 marks in gold.¹⁶ The chronicle from Æm Abbey, a Cistercian house in Jutland, implies the existence of lay estates in the 1160s when it notes that two thirds of this monastic estate was exchanged for the land King Valdemar I had bought from the heirs of the noble lady Inger.¹⁷

Details of the royal estates are set out in *King Valdemar's Survey* (c. 1230).¹⁸ The king had land scattered throughout the realm, but from the main part of the survey it is difficult to assess the extent of crown land. In the chapter on rural levies and royal finances of this book a tentative estimate indicates that the king owned about 5 per cent of the land in the country. The island of Falster is the part of the realm best illuminated by the survey. The king owned 28 per cent of the land on this island.¹⁹ No doubt the proportion was greater here than in other parts of the realm, as Falster's location had been crucial to various kings during their intense activities in northern Germany and the Baltic in the previous 70 years. The Wends were driven out of Falster and Lolland in the late twelfth century and in the early thirteenth century these southern islands of the realm seem to have been sparsely populated compared with Sealand.²⁰

Another great landowner was the Bishop of Roskilde. When the third outbreak of plague struck Denmark, probably around 1370, a survey of the bishop's lands was carried out. According to this survey the bishop owned more than 2,600 farms in Sealand. Unfortunately, it is impossible to estimate the total number of farms in Sealand in the late fourteenth century, but it could not have differed dramatically from the status quo recorded in the first national Danish survey carried out in 1688, when there were 15,500 farms on the island.²¹ The bishop therefore appears to have been an extraordinarily rich man, possibly owning close to 20 per cent of the farms in Sealand. He was apparently

¹⁵ *Libri Memoriales Capituli Lundensis*, pp. 27–28.

¹⁶ *DD*, 1.3, no. 111.

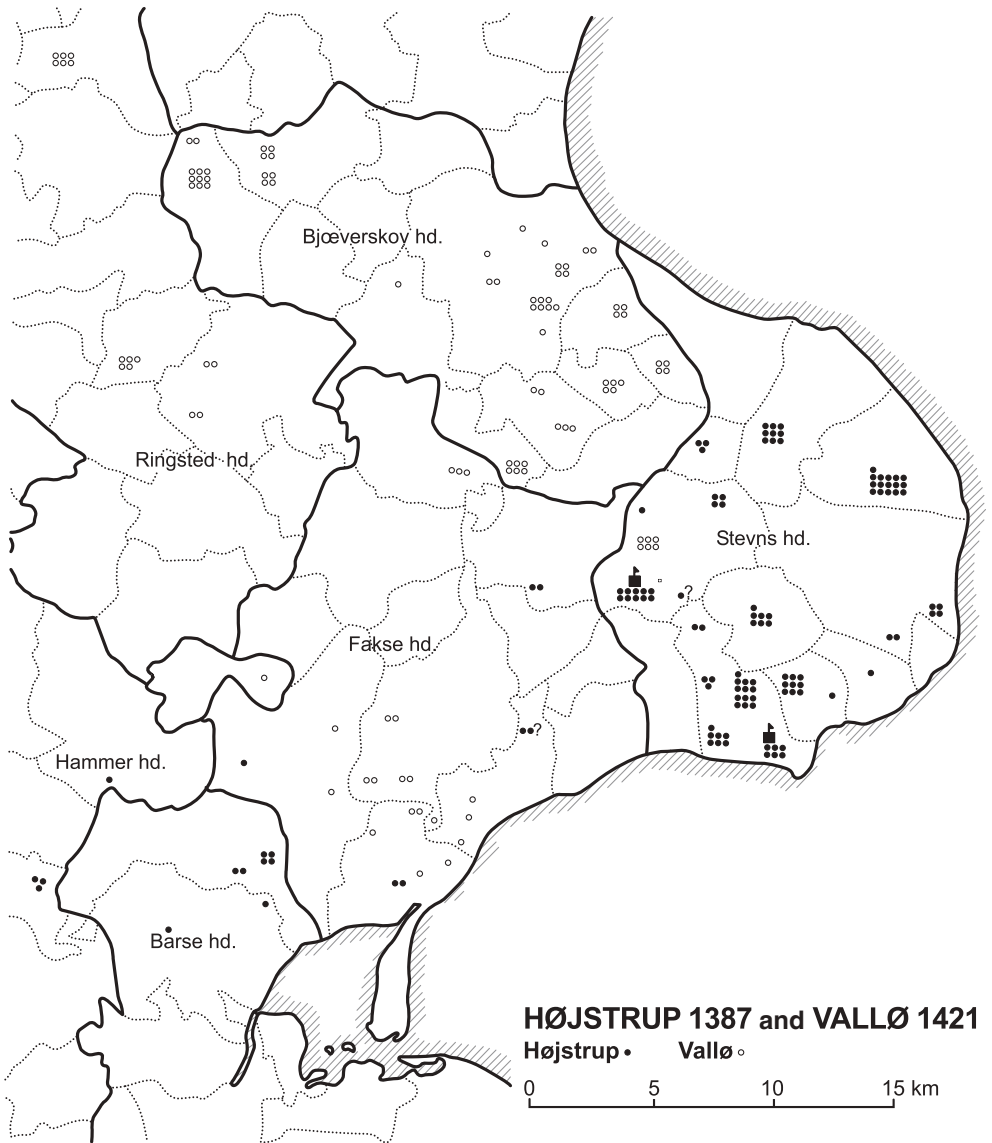
¹⁷ *SM*, 2, p. 169.

¹⁸ *KVJ*, vol. 1.

¹⁹ Erik Ulsig, *Danske Adelsgodser i Middelalderen* (Copenhagen, 1968), p. 31.

²⁰ Bak, *Befolkning og bebyggelse*.

²¹ *Matrikel 1688*, pp. 1–61.



Map 4. The Distribution of Farms Belonging to the Two Sealand Manors Højstrup (in 1387) and Vallø (in 1421)

even richer than the Duke of Schleswig, who owned some 14 per cent of the farms in his duchy at the close of the Middle Ages.²² In the Late Middle Ages the Archbishop of Lund owned more than 2,000 farms, while the Bishop of Schleswig had only 460 farms and the Canons of Schleswig Cathedral 394.²³

The oldest donations to the church show that in the eleventh century the king, lay magnates, and churches owned landed estates scattered throughout various villages. In the next two centuries the development of the physical structure of the large estates showed a drift towards consolidation or at least this was the policy of the monastic and perhaps also of the ecclesiastical institutions. The efforts of the Cistercians are well-known. Sorø Abbey, in Sealand, concentrated its estates by exchange of property: by the early thirteenth century about 60 per cent of its land was located close to Sorø.²⁴ The same endeavour can be traced in Jutland, when the Cistercians moved from Kalvø to Æm and sold *possessiones suas, que longe latque erant*.²⁵ The policy of Esrum Abbey was to centre plots of land around its principal possessions by the exchange and sale of land at inconvenient locations. In the early thirteenth century the greater part of this land had been consolidated; a remarkable achievement as most of this land had been given to the abbey and was originally scattered.²⁶

The creation of manors

For the Cistercians the objective of this policy was to create granges. From charters issued to the Cistercians at Sorø in the 1180s and 1190s it appears that even in these early years much of their land was connected to granges, but they also owned land connected to *mansiones*

²² There were some 14,500 farms in Schleswig in the early sixteenth century: 7,500 were freehold farms; 2,000 were owned by the Duke, c. 2,300 by religious foundations, and 2,700 by members of the nobility. Rasmussen, *Rentegods*, pp. 111, 117–118.

²³ Ingesman, *Ærkesædets godsadministration*, pp. 25–26; Ethelberg et al. *Det Sønderjyske*, p. 590.

²⁴ P. Nørlund, “Klostret og dets godser”, *Sorø, Klostret, Skolen, Akademiet gennem tiderne*, vol. 1 (Copenhagen, 1924), p. 86.

²⁵ “their distant properties.” *SM*, 2, p. 176.

²⁶ J. Overgaard Jørgensen, *Esrums klostres godsdrift fra klostrets grundlæggelse til o. 1400*, unpublished thesis (Copenhagen, 1987).

outside the grange system.²⁷ By the mid-thirteenth century about 13 granges were owned by Esrum Abbey.²⁸ As in England and elsewhere in Europe the founding of granges alongside or amongst active village communities witnessed a displacement of the population and in some cases even resulted in lost villages.²⁹

Incontrovertible cases of depopulation and lost villages as a result of Cistercian activity can be found in northern Sealand at Esrum.³⁰ However, we know little about the way in which Cistercians in Denmark achieved this policy, in other words how they persuaded the villagers to leave. The only surviving account of this issue seems to echo the gloomy picture given by certain contemporary English writers concerning the Cistercians' treatment of villagers.³¹ When the monks settled at Øm, certain peasants 'sold their land willingly, while the rich peasants were more reluctant', so writes the abbey chronicler. The mother of Christ reportedly appeared in a dream and had to threaten a prominent villager to sell his land to the monks. His wife and friends warned him against the sale, but he went ahead and set a good example, encouraging his fellow villagers, also prosperous but unwilling, to sell, so the chronicle asserts.³² Psychological coercion or the exertion of physical force were preconditions for the establishment of granges, but payment and occasionally some form of re-settlement probably also followed the dismantling of a village.

²⁷ *Locum ipsum Sorae in quo monasterium uestrum situm est cum pertinentiis suis. grangias uestras Slaglosae Lyunhae... cum adiacentibus siliis et pratis et pascuis et molendinis. Similiter exteriores mansiones uidelicet Snaertinghe, Ubii...* *DD*, 1.3, no. 140.

²⁸ Jens Anker Jørgensen, "Cistercienserne som jordbesiddere", *Esrums Klosters Brevbog*, vol. 2, eds. Bent Christensen et al. (Copenhagen, 2002), pp. 48–49.

²⁹ R. A. Donkin, "Settlement and depopulation on Cistercian estates during the twelfth and thirteenth centuries, especially in Yorkshire", *Bulletin of the Institute of Historical Research* 33 (London, 1960), 141–165.

³⁰ Letters from Pope Alexander III and Archbishop Absalon confirming the estates of the monks at Esrum Abbey state that the abbey itself was placed where the former village of Tanga had been. The village of Villingrød seems to have been converted to a grange and included the land belonging to the destroyed villages of Eskildsholm, Langholm, and Davidstorp. Similarly, Havreholm was founded on the site where the village of Aholm had been. *DD*, 1.3, nos. 76, 77.

³¹ Guiot de Provins, writing around 1200, states that in England the Cistercians 'frightened the poor and drove them from their land.' His contemporary Walter Map asserts that the Cistercians 'raze villages and churches'. *Le Euvres de Guiot de Provins*, ed. J. Orr (Manchester, 1915) p. 48; Walter Map, *De Nugis Curialium Courtiers Trifles*, translated by M. R. James, eds. C. L. N. Brook and R. A. B. Mynors (Oxford, 1983), pp. 92–93.

³² *SM*, 2, pp. 176–177.

The letter of the Cistercian Rule required that there should be no contact with lay agriculture, but this was not the only reason why the Order created granges.³³ The Cistercians recognized the advantages of large, consolidated holdings and were generally perceived by medieval writers to be specialists in agriculture and effective at putting their ideas into practice.³⁴ The first evidence of consolidated estates and manorial production available in Danish sources predates the arrival of the Cistercians and is found in a charter dated 1133. In this document Archbishop Asser of Lund records the land he gave to his church, St Laurentii, ten years earlier: most of this land is related to a *curia*, but Asser also donated land located in villages.³⁵ Twenty years later another Archbishop of Lund confirmed Esrum Abbey's privileges and also the possession in northern Sealand and Halland. In this charter the same distinction between plots of land in villages, whole villages, and land related to a *mansio* can be found. A pontifical charter dated 1178 and addressed to the Augustinian house at Æbelholt, also located in northern Sealand, makes a distinction between *villam mansionem* and *curiam in ciuitate Roskildensi*.³⁶ From these and many other charters it can be concluded that the estates of the great twelfth-century landowners were either located in villages or in *mansiones* or *curiae*, as well as, in the case the Cistercians, in granges.

The amount of land related to a *curia* or *mansio* was not necessarily much greater than the land held in villages. On the other hand the demesnes were in general quite substantial, whereas land in the villages could also comprise small plots.³⁷ In the above-mentioned charter, dated 1133, the *curiae* had two, six and a half, one and a half, one, and four *mansi* of land. In the last decades of the twelfth century Archbishop Absalon gave a *mansio seu curia in Wedleby* (Vejleby) with five *mansi* and one *otting* (one eighth of a *mansus*) of land. In 1199 Jens Sunesen pawned a *curia* at Alsted which comprised three and a half *mansi*, Peder Sunesen

³³ *Statuta Capitulorum Generalium Ordinis Cisterciensis*, vol. 1, ed. J.-M. Canivez (Louvain, 1933), p. 429.

³⁴ For example Petrus de Crescentiis (1305). G. Mickwith, in *The Cambridge Economic History of Europe*, vol. 1, eds. J. H. Clapham and Eileen Power (Cambridge, 1942), p. 334.

³⁵ *Curiam Wesum habentem ii mansos curiam Aby. habentem vi mansos et dimidium. curiam in Hambri habentem mansum et dimidium*, etc. *in villa Raby iiii mansi et dimidius Eskilstorp mansus*, etc. *DD*, 1.2, no. 56.

³⁶ *DD*, 1.2, no. 126; 1.3, no. 79.

³⁷ See, for example, the allotments donated to St Peder's Abbey, Næstved, in c. 1200. *DD*, 1.3, nos. 183, 186.

gave a *mansio et curia in villa Broby* with three *mansi*, Andreas Sunesen gave *mansio et curia in villa Åse de 4 mansis*, etc. Similarly, various mortgage deeds and exchanges of real estate dating from the thirteenth and fourteenth centuries indicate large consolidated estates related to the *mansiones* and *curiae*.³⁸

Manorial structures are recorded in more detail in the earliest Danish surveys of private landed estates. The survey of the estates of the Chapter at Aarhus was made sometime in the second decade of the fourteenth century, when the great famine ravaged Europe. The estates belonging to the canons were located in eastern Jutland, around Aarhus, and in north western Sealand.³⁹ Their arable land is measured in *mark* or *øre* and represents the cost of seed needed to sow that particular area.⁴⁰ The entries range from two *øre* of seed to about 70 on the greatest estates, with an overall average of about 22 *øre*. A tentative conversion of the entries of seed to modern standard can be made for some of the estates. At Hinnerup, the land is estimated in the survey to 24 *øre* of seed. The national survey carried out in 1688 records tilled fields at Hinnerup amounting to 217 *tønder land*.⁴¹ Assuming that the area of the tilled land did not develop significantly in intervening centuries the Canons of Aarhus had some 295 acres under the plough at Hinnerup in the second decade of the fourteenth century.⁴² In Hedensted they had 262 acres. These were medium-sized land holdings, while in Kysing/Norsminde, for example, they owned an estate of 679 acres.⁴³

Around 1370, some of the estates belonging to the Bishop of Roskilde were even bigger. In Havelsemagle the bishop had eight *mansi*. This was probably all the arable land in Havelsemagle, which was estimated in the 1688 survey at 659.4 *tønder land*.⁴⁴ If no major alteration to the arable land at Havelsemagle took place in the 300 years between the 1370s and the 1680s, and this is not at all unlikely, the bishop had

³⁸ Ulsig, *Danske Adelsgodser*, pp. 117–119.

³⁹ *ADJ*, vol. 3 (Copenhagen, 1975).

⁴⁰ 1 *mark* = 8 *øre* = 24 *ørtug* = 288 *penning*.

⁴¹ *Matrikel 1688*, p. 197.

⁴² 1 *tønde land* = 5,516 square metres. 1 acre = 4,047 square metres.

⁴³ *ADJ*, vol. 3, pp. 14, 19–20. The acreage of Hedensted, Kysing, and Norsminde is converted from *øre* seed on the basis of tables A and C: *ibid.*, pp. 51, 60–6. Hedensted 35.50 *øre* seed, 1 *ørtug* seed = 1.79 *tønder land*. Calculation $35.5 \times 3 = 106.5 \times 1.79 = 192$ *tønder land* $\times 5,516 \div 4,047 = 262$ acres. Kysing/Norsminde 70 *øre* seed, 1 *ørtug* = 2.37. Calculation $70 \times 3 = 210 \times 2.37 = 498$ *tønder land* $\times 5,516 \div 4,047 = 679$ acres; *Matrikel 1688*, p. 197.

⁴⁴ *Ibid.*, p. 9.

899 acres of arable land at this location.⁴⁵ This estate was divided into two. The home farm (*curia principalis*) had *in censu* four *mansi*. Another four *mansi* were divided between 15 leaseholders. In 1370, the manor probably had 450 acres of arable, as well as a wood.⁴⁶ The acreage of this Danish manor was comparable to manors in France, western Germany, and England.⁴⁷

In the Bishop of Roskilde's survey 119 farms are recorded which can be classified as manors. Only a few matched the acreage of the manor at Havelsemagle. The manor (*curia principalis*) at Aastofte possessed merely one fourth of the arable land at this location. In the 1688 survey the arable at Aastofte comprises 348.5 *tønder land*, equal to 475 acres.⁴⁸ Of this acreage the home farm had 119 acres. The majority of the Bishop of Roskilde's manors were even smaller.

To compare the estates of the Bishop of Roskilde registered in the survey of 1370 with the national survey of 1688 is a tentative enterprise, not only because the acreage of arable land was rarely static over this period, but also because it is not at all certain that the bishop owned all the land in all the villages listed in the 1370 survey. A few entries explicitly mention that the bishop owned '*tota villa*': Ordrup, Fårevejle, Veddinge, and Magleby, but only in the latter did the bishop have a manor. The survey indicates that the bishop owned all the land at Snuderup, but there was no manor here either. The survey provides information on the proportion of the total arable land owned in Gjorslev by the bishop. The arable land in the *exactio* of Gjorslev comprises 12 *mansi*. In the village of Gjorslev the bishop owned six *mansi*, of which three *mansi* were adjacent to the manor: *adiacencia curie principalis*. In the national survey of 1688 a total of 657 *tønder land*, equal to 895 acres of arable land, are recorded at Gjorslev.⁴⁹ Provided that no change in the size of arable land took place between 1370 and 1688 the bishop

⁴⁵ $659 \text{ tønder land} \times 5,516 \div 4,047 = 899 \text{ acres}$. Ibid; "Roskildebispens jordebog", pp. 72–73.

⁴⁶ *Avna silua que dicitur Hawloskowgh*. Ibid, p. 73.

⁴⁷ In the south of the English Midlands, for example, only 36 per cent of the manors mentioned in the Hundred Rolls possessed more than 500 acres of arable land. Georges Duby, *Rural Economy and Country Life in the Medieval West* (Columbia, 1968), pp. 260–278; In Cambridgeshire the home farm belonging to the Bishop of Ely's manor at Thriplow had 372 acres of arable land, as well as meadow and pasture. Edward Miller and John Hatcher, *Medieval England. Rural Society and Economic Change 1086–1348* (London, 1978), p. 185.

⁴⁸ *Matrikel 1688*, p. 38.

⁴⁹ Ibid., p. 49; "Roskildebispens jordebog", p. 2.

consequently owned 447.5 acres in the village plus a demesne of identical size in 1370. Compared with west European standards Gjorslev was quite a large manor. During the Late Middle Ages the manor expanded. The village land was turned into demesne land and by 1540 there were no farms left in the village.⁵⁰

The restructuring of estates

The surveys carried out for both the Canons of Aarhus and the Bishop of Roskilde record intact manorial systems, but nonetheless there are signs that desertions have occurred and even, on the Bishop of Roskilde's estates, traces of manorial decay. The survey of the Canons of Aarhus, dating from the second decade of the fourteenth century, records that many of the eight smallholdings in the village of Starreklint are deserted (*desolatii*) and that formerly they paid a small money rent, two chickens, and five days of labour service a year. In the village of Forsing the survey notes that there were formerly four holdings. In Følle three out of twelve holdings were unoccupied, while parts of the fields at Tirstrup, Vester Alling, and Låsby were covered with heather and woodland.⁵¹ More such examples can be found in the survey.

Similarly, the Roskilde survey (1370) documents a peasant population disappearing, land deserted, and farms abandoned. The survey includes 28 counties. In ten of the counties no desertions are reported, while in some of the 18 counties hit by abandonment the problem seems to have been serious. In certain villages close to Copenhagen the scale of desertions was severe.⁵² In none of these villages did the bishop own manors, but it is perhaps a sign of manorial decay that in the village of Sibberup the workforce of the *curia villicalis* had fallen, it is said, from five to three. The number of cottars at the disposal of the manor at Syllinge Mark fell from seven to four; at Syllinge from six to three; in Sterrede there had been four cottars, in 1370 only one was left. The

⁵⁰ C. A. Christensen, "Ændringerne", 289; Gissel, *Landgilde*, p. 270.

⁵¹ *ADJ*, vol. 3, pp. 12–13, 17, 21, 25.

⁵² In the village of Valby the bishop had eight and the canons two *mans*. All the canons' land with two farms, and half the bishop's land with seven farms, were *desolata*. Thus only three eighths of the fields at Valby were under the plough in 1370. The nearby village of Solbjerg was also severely hit: almost half the arable land associated with this village was deserted. Even in the adjacent village of Nyby, only recently founded, one third of the fields lay waste. "Roskildebispens jordebog", pp. 131–33.

two original cottars in Østerbjerg seem to have disappeared by the time the survey was made.⁵³ More examples illustrating the decay of the labour force attached to the bishop's manor are recorded.

The chronology and extent of the desertions in late medieval Denmark are impossible to reconstruct, but title and mortgage deeds from the second half of the fourteenth century and the first half of the fifteenth century frequently state that some farms or unspecified land were deserted. On the basis of this material it is possible to create an image of the chronology and extent of desertion as follows:⁵⁴

Table 2 Desertions noted in title and mortgage deeds 1361–1460

Period	Number of Farms at work	Number of deserted farms	Entries recording unspecified Wasteland
1361–1380	277	33	22
1381–1400	553	103	39
1401–1420	750	264	51
1421–1440	436	92	21
1441–1460	499	43	14

This image corresponds with the general conclusions published by a Scandinavian report on deserted farms and villages.⁵⁵ In Denmark desertions peaked around 1400, simultaneously with the *Wüstungen* in Germany, and in the first decades of the fifteenth century.⁵⁶ On the estates of the Bishop of Roskilde it was primarily the smallest farms that were abandoned.⁵⁷ Because land was abundant it was a leaseholder's market, but in 1370 the situation was far from catastrophic from the bishop's point of view.

The only direct indication of manorial decay comes from a later entry in the survey. In November 1402 the bishop bought the '*totam villam*' at Magleby, excluding three farms, from a knight called Folmar Jacobsen Lunge.⁵⁸ This acquisition was recorded in the survey shortly

⁵³ Ibid, pp. 16–17, 39.

⁵⁴ Christensen, "Ændringerne," 346.

⁵⁵ Svend Gissel et al., *Desertions*.

⁵⁶ Nils Hybel, "Ødelæggeser", pp. 317–335.

⁵⁷ Per Raslow, "Ødegårde", 1–38.

⁵⁸ *DD*, 4.8., no. 483.

after. By way of introduction the entry notes that a *curia principalis* and six farms are *desolatis*. Thereafter 20 peasants are listed, each paying a rent of from two to five *pund* of grain.⁵⁹ Apparently a profound structural change had taken place and one which reflects a general trend in the Late Middle Ages.

Unfortunately there are no Danish surveys handed down to us from the fifteenth century. In order to demonstrate that this structural change at Magleby represents a general trend in the Late Middle Ages we can do no better than compare the Roskilde survey, carried out in the late fourteenth century, with a survey dated about two hundred years later and including various documents dating from 1450 to 1614. If we compare the total number of manorial units, peasant farms, and cottars in these documents the following picture of structural change on the Roskilde estates appears:

Table 3 Structural changes on the estates of the Bishop of Roskilde

	1370	Sixteenth century
Manorial units	119	19
Peasant holdings	1539	1436
Number of Cottars	431	46

The comparison indicates an almost complete abandonment of manorial production as well as a decline of nearly 25 per cent in the number of peasants and cottars on the estate; the latter, in particular, have plummeted by some 90 per cent, apparently creating peasant communities that were more egalitarian and an economy based almost entirely on peasant production.⁶⁰

The peasant farm was the central element in the late medieval manorial system. In most cases the manor was the administrative centre for the collection of rents and dues from peasant farms and was occasionally also the home of the lord. Some lords owned several hundred peasant farms, sometimes dispersed and remote from the manor. For example, when Povl Laxmand died in 1502 he left five manors and about 900

⁵⁹ "Roskildebispens jordebog", p. 4.

⁶⁰ Nils Hybel, "Landownership, farming and peasants in Denmark in the Middle Ages", in *Landholding and land transfer in the North Sea area*, eds. Bas van Bavel and Peter Hoppenbrouwers (Turnhout, 2004), pp. 195–196.

peasant farms. When Mette Albrechtsdatter Bydelsbak died in 1513 she had six manors and about 710 peasant farms, while Axel Lagesen Brok had 4 manors and about 601 peasant farms when he died in 1498.⁶¹ In the Duchy of Schleswig the nobility owned a total of 107 manors at the time of the Reformation, while the duke had only about eight manors in all. In the second half of the sixteenth century this norm was altered by the expansion of manorial production, but even during this 'high-farming era' in Schleswig the demesnes of the duke's manor did not constitute more than two to five per cent of the total area of the province.⁶² In Denmark manorial production was not very important in the Late Middle Ages and the areas occupied by demesnes were not extensive. The demesnes typically equalled the area of land covered by two to nine peasant farms.⁶³ Some were very large, however. The expansion of the demesne at Gjorslev by the absorption of village land was noted above. The manor at the Bishop of Schleswig's castle of Schwabstedt provides another example, while certain royal manors functioning as centres of the *len* were quite substantial too, for example the manor of Næsbyhoved, Funen, noted below.⁶⁴

Estate management

Land belonging to the Bishop of Roskilde was supervised by *exactoris*, a term customarily used for legal and economic administrators acting for the king or bishop.⁶⁵ The presence of these functionaries is indicated by the fact that 28 *exactionis* are listed in the survey of the bishop's land. A large farm is attached to 21 of the *exactionis*. Nearly all of these farms are designated *curia principalis*. Rent is entered for three of the farms. These are Jystrup, paying 18 pounds of grain; Bråde, paying ten pounds; and *curia Fodby*, liable for only three pounds of grain.⁶⁶ The

⁶¹ More examples can be found in Ulsig, *Danske Adelsgodser*, pp. 290–91.

⁶² Rasmussen, *Rentegods*, pp. 183, 202, 207, 235, 465.

⁶³ Olsen, *Hovedgård*, pp. 176, 181–84; Ulsig, *Adelsgodser*, pp. 344–351; Rasmussen, *Rentegods*, pp. 467–69.

⁶⁴ Bjørn Poulsen, *Land, By, Marked. To økonomiske landskaber i 1400-tallets Slesvig* (Flensborg, 1988), pp. 43–44.

⁶⁵ In the conflict between Bishop Peder and the abbot of the Cistercian house at Æm, for example, the bishop's *exactoris* were accused of oppressing the abbot's *villici* and *coloni*. *SM*, vol. 2, p. 207; see also chapter on "Rural Levies and Royal Finances".

⁶⁶ "Roskildebispens jordebog", pp. 16, 18, 79.

remaining 18 entries give no indication of the rent that was assessed, as, with two exceptions, they do for the peasant farms in the district (*herred*) or *exaction* concerned. The exceptions are the *exactionis* of Tollerup and Kappelgård.⁶⁷ It is therefore reasonable to conclude that in the majority of the *exactionis* the *exactor* was not only a legal administrator who collected rent from the bishop's peasants but also an agricultural bailiff; in other words the majority of these manors attached to the *exactionis* were run directly by bailiffs.⁶⁸

Curia principalis is the term most commonly used in the survey for large farms comprising one to four *mansi* of land. However, the terminology is not consistent. In the survey, 45 manors can be identified: of these 33 are called *curia principalis*, while the rest are entered either simply as *curia* or are identified by their large acreage alone. The manor at Bistrup is the only holding to be entered as a *grangia* with land for three ploughs and eight *inquilinos*, the latter being described in the entry for the *exaction* of Svenstrup as workers attached the manor.⁶⁹ *Inquilinos* or alternatively *gardsaeder*, i.e. cottars, are mentioned in relation to most of the manors.

The entries for just over half of the Bishop of Roskilde's 45 manors include no information at all about rents.⁷⁰ In four cases this could be because the manors concerned were located in districts not covered by the survey anyway, so it is impossible to determine whether rents were paid by them or not. However, this methodological problem affects only four manors: besides the two above-mentioned *exactionis*, Kappelgård and Tollerup, these manors are Bistrup and Jyllinge, in the district of Sømme.⁷¹ If, despite this difficulty, we assume that an absence of information about land rent means that the manor in question was under direct management, it can be deduced from the survey that 23 of the bishop's manors were run by his bailiffs while 22 were farmed out.

It is possible to discern a geographical pattern in the administration policy adopted by the bishop. All the manors except one in the district of Ods in north-western Sealand were farmed out.⁷² In the district of

⁶⁷ Ibid., pp. 91, 96.

⁶⁸ Ibid., pp. 2, 10, 16, 18, 21, 24, 28, 30, 31, 73, 76, 79, 88–91, 98.

⁶⁹ Ibid., pp. 93, 102.

⁷⁰ Ibid., pp. 2, 4, 7, 10, 11 16–18, 21, 24, 28, 30, 31, 43, 44–47, 57, 70–73, 76, 79, 84, 86, 88–91, 93, 96, 98, 130.

⁷¹ Ibid., pp. 92–94.

⁷² Ris was managed directly, while Ellinge, Asnæs, Astofte, Stenstrup, Høve, Vig, Kollekolle, Hønsinge, Sidinge, Lumsås, and Olstrup were farmed out.

Horns, just east of Ods, three manors were farmed out, while only one was managed directly.⁷³ In the district of Vestre Flakkebjerg in south-western Sealand two were farmed out and one was managed directly.⁷⁴ In the three districts of Ringsted, mid-Sealand, Smørum, north-west of Copenhagen, and Bårse, in southern Sealand, there was one manor of each type.⁷⁵ In the district of Østre Flakkebjerg, south-western Sealand, the bishop had only one manor, which, like his only manor in the district of Sokkelund north-west of Copenhagen, was leased out. The remaining manors, 17 in all, were managed directly. They were all situated in districts where none of the bishop's manors was farmed out, i.e. in east, mid-, and north Sealand.⁷⁶

The tendency in the bishop's manorial policy seems to have been to farm out the most remote manors in the north-west and south-west of Sealand, the district of Odsherred being the most pronounced example of this. Nevertheless, this deduction is far too vague to justify a conclusion that the type of management was chosen solely on the basis of geography. On the other hand it is remarkable how consistently the manors in the Roskilde district and in east and north Sealand were managed directly by the bishop's officials. Within these regions only Værløselille in the district of Smørum and Nærum in the district of Sokkelund were farmed out. However, it must also be taken into consideration that it is in these regions that we also find the largest manors.⁷⁷

⁷³ The manors farmed out were Vestby, Dråby and Skuldelev, while Sønderby was managed directly.

⁷⁴ Bråde and Olstrup were farmed out and Snedinge was managed directly.

⁷⁵ In the district of Ringsted, Jystrup was farmed out, while Haslev was in the charge of the bishop's officials. In the district of Smørum, Værløselille was farmed out and Ballerup was managed directly, and in the district of Bårse, Beldringe was farmed out while Lekkende was under direct management.

⁷⁶ Close to Copenhagen the bishop owned Serridslev; in northern Sealand he had Ebbekøb; in the district of Lyng-Kronborg, Tollerup; in the district of Lyng-Frederiksborg, Farum; in the district Ølstykke, Slagslunde; in the district of Strø, Havelsemagle and Melby. In mid-Sealand were Tuse, in the district of Tuse, and Tølløse and Ellinge, in the district of Merløse. Close to the episcopal residence at Roskilde the bishop owned Bistrup and Jyllinge in the district of Sømme and Kappelgård in the district of Tune, while Magleby and Gjorslev in Stevns together with Rollerup and Brorup outside Slagelse were somewhat more distant from the cathedral city.

⁷⁷ The largest manor at farm was Skuldelev with three *mansi*. Nærum and Dråby with two *mansi* each were also let on lease. The adjoining land of the rest of the farmed out manors ranged from one and a half to half a *mansus*. In contrast the directly managed farms at Serridslev, Tuse, Havelsemagle, and Jyllinge each had four *mansi*. The

The trend obviously seems to have been that the bishop's bailiffs managed the large manors and left the smaller ones to lessees. This tendency is confirmed by an examination of the smallest group of manors, those designated *brydegårde* by historians. Most of these are entered in the survey as *curia villicalis*. The largest of this type had one *mansus* of land. For this reason, the identification of these small manors is either deduced from the terminology employed or from the message. There are 75 such *curia villicalis*.⁷⁸ In only one case is the land rent not entered in the survey: we are merely informed that in Arnakke there was a *curia villicalis* with one *mansus* and four cottars. However, as the rents of the neighbouring peasant farmers are not stated either, this matters little. It can be concluded that, like the 22 lesser *curia principalis*, all the bishop's *curia villicalis* were farmed out. Of the 120 identifiable manors in the survey, 97 were farmed out. The remaining 23 manors, mainly situated around the cathedral city of Roskilde and in east and north Sealand, were managed directly.

Strangely enough not a single manorial account has been handed down from these demesne manors, although the first known Danish manorial account is contemporary with the survey carried out for the Bishop of Roskilde. This account is dated 1388/89 and comes from the Bishop of Ribe's manor at Brink, on the south-west coast of Jutland.⁷⁹ In this account the bailiff records manorial produce, incomes in kind and money, fines, and wages for various retainers, including archers and guards. Clearly this is not simply a manorial account. The bailiff was not only an agrarian manager but also had legal obligations. Among the other 20 people on the bishop's payroll, eleven are mentioned with no trade given: these were probably farm workers employed in the cultivation of the demesne at Brink, which was doubtless managed directly by the Bishop of Ribe's bailiff.⁸⁰

Ramløse is entered in the Bishop of Roskilde's survey as an *exactio*, and probably already had this status when Rike, Bishop of Roskilde,

demesne farms at Sønderby, Tollerup and Brorup had three *mans*i each and Farum, Ballerup and Rollerup had two *mans*i each.

⁷⁸ They are found in the villages of Arnakke, Avderød, Bjergesø, Bregninge, Butterup, Elmelund, Fredstofte, Hørve, Kindvig, Løgtved, Mortenstrup, Olstrup, Rude, Rye, Sjølsmark, Stenbjerg, Stubberup, Troelstrup, Vestby, and Østrup. Ibid., pp. 9, 12, 17, 30, 37, 38, 40, 41, 43, 44, 71, 76, 80, 81, 92, 138.

⁷⁹ "Regnskabet for Ribebispens gård Brink 1388-89", p. 319.

⁸⁰ Bjørn Poulsen, *Bondens penge. Studier i sønderjyske regnskaber 1400-1650* (Odense, 1990), pp. 28-49; Hybel, "Godssystemerne", 40-60.

was killed there during the rebellion against King Erik Lam.⁸¹ Later, in the second half of the twelfth century, the *villici* of Ramløse witnessed two charters.⁸² The status of these *villici* is not clear, but they must have been of some importance since they witnessed charters issued by Bishop Absalon and King Cnut VI. *Villici* often appear as witnesses in documents from the twelfth century.⁸³ They were probably agrarian managers and/or bailiffs with legal and fiscal powers. It is possible that some twelfth-century Danish manors were managed directly by the owner's bailiffs. However, direct management was not the principal means of manorial production in the twelfth and thirteenth centuries; farming out was more common or at least is more apparent from the sources.

The farming system is described for the first time in Danish sources in the 1180s. The first charter to mention a *mansio* with *villici et coloni*, i.e. which records *villici* as tenant farmers, dates from 1184, when the Pope confirmed the liberties of the Roskilde Chapter. Some of the Bishop of Schleswig's manors were also leased out in the late 1180s, while in the 1190s the Benedictine monastery at Ringsted farmed out manors. The Cistercians followed suit soon after. The year before the General Chapter allowed the farming out of less useful land in 1208, the Cistercian house at Ryd in Schleswig adopted leasing. Obviously the General Chapter was merely bringing Cistercian regulations into line with existing practice and in 1224 permission was finally granted to farm out any land to laymen. The Cistercians at Løgum introduced farming out four years later. In the next two decades still more tenant farms appear in the sources and after 1250 the phrase *villici et coloni* can be found in most of the royal charters. The system of farming out was widespread on monastic estates from the 1230s, while it is not directly detectable in the sources covering the lay estates before the fourteenth century.⁸⁴

As we have seen, farming out was predominant on the Bishop of Roskilde's estates around 1370, when 97 out of 120 manors were run on this basis. Farming out was even more important on estates belonging to the canons of Aarhus Cathedral in the early fourteenth century: all

⁸¹ "Roskildebispens jordebog", p. 75; *Trap Danmark*, eds. Niels Nielsen, Peter Skautrup and Povl Engelstoft, vol. 3 (Copenhagen, 1953), p. 183.

⁸² *DD*, 1.2, no. 162; 1.3, no. 179.

⁸³ See, for example, *DD*, 1.2, nos. 34, 91.

⁸⁴ Nils Hybel, "The Creation", 259–280.

their manors were at farm.⁸⁵ In the fourteenth century the majority of lay manors seem also to have been let on lease.⁸⁶ The farming out system originated in the 1180s and became the most common way of organizing large-scale agriculture in the thirteenth and fourteenth centuries. In step with the decay of manorial production, farming out had lost its importance by the end of the Middle Ages. This trend can be seen throughout Denmark and also in the Duchy of Schleswig.

Direct management was widespread in the duchy during the sixteenth century, while in the seventeenth and eighteenth centuries many manors were farmed out.⁸⁷ The bailiff's accounts from the royal manor situated north of Odense, in Funen, are preserved for the years 1502, 1503, and 1505. In 1502 a manorial profit of 10 lasts and 3 *ørte* barley, 1 last oats, 10 lasts rye minus 6 *ørte*, 237 pigs, 9 barrels of butter and two barrels of cheese indicate a considerable domain of arable, meadow, and woodland being farmed under direct management.⁸⁸

The survey carried out by order of Eline Gøye in 1552 and combined with transcripts of older surveys shows an exceptional wealth in landed property accumulated by her enterprising ancestors over a period of 150 years. Innumerable peasant farms, cottages, mills, and fishponds, etc., grouped around 15 manors in Jutland, Scania, Sealand and Lolland, are recorded. Only two of these manors seem to have been farmed out.

Eline Gøye's collection of surveys displays all known European forms of estate management practised in the Middle Ages. In Jutland Eline's father, Mogens Gøye, owned a small manor at Skærsø, which was farmed out to Oluff Jepsøn in return for six *ortug* rye, six *ortug* barley, two barrels of butter, one fat pig, one sheep, one lamb, one goose, two hens, and 24 *mark gæsteri*.⁸⁹ Also in Jutland, Mogens Gøye's larger manor at Blæsbjerg must have been farmed out, since the farm rent of 12 barrels of barley, 10 barrels of oats, and one barrel of butter is entered in the survey. Peasants liable for boon days on this estate either performed the labour required or commuted it to a payment in money

⁸⁵ *Å.D.J.*, vol. 3.

⁸⁶ See, for example, *DD*, 2.6, nos. 17 (1306), 119 (1308), 326 (1311); 3.6, no. 74 (1361); 3.9, no. 216 (1372); *SRD*, vol. 4, pp. 476, 485.

⁸⁷ Rasmussen, *Rentegods*, pp. 46–47.

⁸⁸ *Næsbyhoved*, p. 144. See also chapter on "Rural levies and royal finances".

⁸⁹ Commutation of the obligation to house the lord and his train.



Ill. 5. Glimmingehus in Scania

or kind, while no labour service were available for Oluff Jepsøn who farmed Skærsø.⁹⁰

Two manors were parcelled out as peasant farms by Eline's parents, one of them temporarily, as we shall see below. Her father's manor at Kjeldkjær in Jutland was leased out to Niss Tommesen and Niss Eyessøn, each paying two barrels of butter and keeping 10 horses for the lord.⁹¹ In the village of Græse, Sealand, 18 peasants are listed as

⁹⁰ *Eline Gøyes Jordebog med tilhørende Brevuddrag*, ed. A. Thiset (Copenhagen, 1892), pp. 179, 332–334.

⁹¹ *Ibid.*, p. 344.

paying rent in money and kind together with eight so-called *gaardsede*, i.e. cottars also paying rent in money and kind. Eline's mother Mette carried out a survey which states that 'when the demesne is cultivated and no peasants are living on the manor they pay no rent', i.e. in that case they performed labour services.⁹² Thus, the demesne at Græse was apparently parcelled out to some or all of the peasants mentioned, but the possibility of turning the peasant land back to a demesne was left open, keeping the cottars as a potential labour force. It was indeed important to keep this workforce viable if the landlord wished to recreate the demesne, since the peasants in the surrounding villages had no labour obligations.

The remaining manors in Eline Gøye's collection of surveys seem to have been managed directly. It is unfortunately not possible to determine whether manorial production took place on all of these eleven manors. Seven manors appear in the surveys without any information about an attached labour force.⁹³ The rural population subject to these manors in the neighbouring villages had no labour obligation at all, therefore either the demesnes were worked by paid labourers or, more likely, manorial production was not carried out on these manors. They were most likely to have been administrative centres collecting rents from the attached peasant farms, as perhaps were the remaining four manors in the survey, although the information given about one of these is ambiguous.

Clausholm manor appears in both Eline Gøye's own survey and in the transcript she ordered of an earlier survey of her mother's estates. If we compare the two surveys it seems probable that Eline inherited only some of the peasant farms attached to Clausholm. In the villages close to the manor, Lady Mette had 35 farms while Eline had only 19.⁹⁴ Some of the names of the peasants are repeated in the surveys and indications of the succession of farms from father to son can also be found.⁹⁵ At the time of the first survey, 21 of the 35 peasants in

⁹² 'Thisse ere gaardsede, naar der holdis affuel oc icke bo bønder i hoffuitgaardenn, tha giffuer thett inthett landgilde.' Ibid., p. 300.

⁹³ These manors are Bollerup and Fjerløf in Scania, Bregentved and Torbernfeldt (Frydendal) in Sealand, and Ansbjerg and Aagaard in Jutland. Ibid., pp. 1 ff., 40 ff., 191 ff., 328 ff., 451 ff., 486–487.

⁹⁴ The villages of Mygind, Rigtrup, Hvalløse, and Voldum. Ibid., pp. 43–46, 222–224, 228.

⁹⁵ In Voldum, Jens Jonnssøn, Jens Fiil, and Grafuers Henrickssøn are mentioned in both surveys and so is Nis Ebbesen in Rigtrup. Jens Perssøn in Hvalløse and Nis

these adjacent villages performed week work. During the harvest they worked two days a week, but boon work seems to have been unknown in the villages attached to Clausholm. In 1552 no record of labour service can be found at all. It seems that manorial production was given up some time between the commissioning of Mette's survey and her daughter Eline's.⁹⁶

Lady Mette had two more manors of the Clausholm type. In the villages of Gunderslevmagle and Tokkerup, close to the manor of Gunderslevholm in Sealand, there were 11 cottars each working on the manor two days a week during harvest and one day a week throughout the rest of the year. Additionally six of the 17 peasants in the village of Skafterup were burdened with eight boon days each.⁹⁷ Boon days were known in the villages surrounding Lady Mette's manor at Løgismose on Funen too, but the bailiff did not stake much on boon work since about half of it had been commuted to money rent. What was left merely comprised 16 boon days during harvest. Week work was far more important to the manor of Løgismose. In the village of Nellemose ten peasant farms had to perform the usual standard of two days work a week during harvest and one day a week for the rest of the year.⁹⁸

The manor listed in Eline Gøye's collection of surveys which relied most on boon work was Mogens Gøye's manor at Krenkerup on Lolland. In Krenkerup and Hydesby, the villages closest to the manor, seven cottars performed the standard two days work a week during harvest and one day a week for the rest of the year. On top of these 350 to 400 week works, the manor could call upon 576 seasonal workdays, i.e. boon days, from peasants in villages scattered across the island. Most of these peasants were liable to two or eight boon days, normally during harvest but sometimes carried out as ploughing. The cottars in the village of Gieltofte and a peasant at Flintinge had a special obligation: they brought clay and wood to the brickworks, apparently at the will of the lord. The cottars in Gieltofte had to fill and empty the brick kiln as well and also carried out five days of ploughing.⁹⁹

Clementssøn in Rigtrup, both mentioned in 1552, were probably sons of the Peder Jenssøn and Clement named in Lady Mette's survey. *Ibid.*

⁹⁶ *Ibid.*

⁹⁷ *Ibid.*, pp. 286 ff.

⁹⁸ *Ibid.*, pp. 195–199.

⁹⁹ *Ibid.*, pp. 69–82.

At the close of the Middle Ages, estate management in Denmark was quite diverse. In the Duchy of Schleswig direct management was widespread on the relatively few lay manors around 1540, but only in the hilly arable land in the eastern part of the duchy. In the midlands, on the so-called *geest*, manorial production was less profitable and in the western marshland it was totally absent.¹⁰⁰ Even in the arable land east of Jutland, Scania, and Sealand manorial production was of secondary importance. The majority of the manors were used as administrative centres for collecting rents from attached peasant farms. In Eline Gøye's collection of surveys nine manors served this particular function; the demesnes of two of these were parcelled out to peasant farmers. On the remaining six of the 15 manors, manorial production was carried out. Two of them were farmed out and on four production was conducted in the 'classic' way, i.e. directly managed by bailiffs. However, on one of these, Clausholm, manorial production seems to have been abolished by Eline Gøye's day.

Seignorial revenues

It is clear that the rentier element in the manorial economy was strong at the close of the Middle Ages. The major part of wealth in landed property for which we have information comprised a countless number of peasant farms. Compared with the enormous income derived primarily from rent in kind, but also in money from peasant production, the total amount of labour service recorded in the Gøye surveys is not very impressive, although substantial numbers of working days were at the disposal of the relatively few manors that were directly managed. Krenkerup Manor had perhaps 900 to 950 days of boon and week work at its disposal, and at Clausholm 21 peasants performed around 1000 week works. The demesne of Løgismose was perhaps smaller: at any rate the number of boon days there was moderate, some labour service had even been commuted and only ten peasants performed week work. In total Løgismose had perhaps some 500 days of forced labour at disposal. Judged from the labour services imposed on their peasants the demesnes of Gunderslevholm and Løgismose must have been about the same size. As we saw above, 11 cottars on this manor

¹⁰⁰ Rasmussen, *Rentegods*, pp. 82–83, 202–203.

worked two days a week during harvest and one day a week the rest of the year and six peasants were burdened with eight boon days each. On the very extensive estates listed in the Gøye surveys at the close of the Middle Ages, only about 3000 days of forced labour were available altogether.

Labour services are even less conspicuous in Schleswig and in the bailiff's accounts from the royal manor of Næsbyhoved on the island of Funen. The nine peasants in the village of Stige, close to the manor, performed week work.¹⁰¹ It has been suggested that most of the peasants owed boon days. However, the most solid imprint of boon days on the manor can be derived from the information that 52 sides of bacon and 56 barrels of beer were consumed by reapers and week workers in 1505.¹⁰² Nevertheless, labour services were perhaps more important around and after 1500 than before. Week work at least was not prevalent until after 1500.¹⁰³

The first and only direct reference to week work before the sixteenth century can be found in the entry for Truelstrup Manor in the Bishop of Roskilde's Survey (c. 1370). Boon work is known to have been carried out at Ballerup and Ottestrup. At Ballerup arable and meadow had been parcelled out of the demesne to five cottars in return for working four days a week during harvest and threshing two *marks* of rye for seed after harvest. A much heavier burden was put on 24 tenants at Ottestrup: they were required to work four days a week during harvest in addition to two days of haymaking and some ploughing on the manor of Rollerup. At Stubberup seven cottars 'gave nothing but work at the manor (*castrum*).' How regular or how many days they worked is not mentioned. Nor is regularity touched on when the survey records that in the village of Ellinge six cottars work on the manor (*curia principalis*). The manor at Havelse had 18 servile cottars (*inquilinos sevientes*) in the village of Havelsemagle, but here again the nature and extent of their services are not recorded. Neither the extent of the services *ad castrum* by peasants in Herstedøster nor the '*labore vt sequitur*' performed by the peasants in Borum is noted. Whether these services were at the will of

¹⁰¹ *Næsbyhoved*, p. 378.

¹⁰² H. Bennike Madsen, "Næsbyhoved lens bønder 1502–1510", *Fynske Årbøger* (1963), pp. 140 f.

¹⁰³ Erik Ulsig, "Høveri", in *KLNM*, 21, col. 199–201; cp., Ethelberg et al., *Det Sønderjyske*, pp. 622–625.

the lord or not is impossible to decide.¹⁰⁴ In conclusion it can be said, unsurprisingly, that the week work, most of the boon days, and not least the indeterminate labour services were performed on the manors under direct management.

Claiming that the week work at Truelstrup Manor was imposed on the cottars in return for halving their rent, and using the Ballerup incident which shows that landless peasants acquired land free of rent as *quid pro quo* in the shape of boon work, it has been suggested that labour service was introduced into Denmark in the fourteenth century.¹⁰⁵ This is perhaps not completely wrong, since the Aarhus Chapter's survey dated c. 1313 provides the earliest firm evidence of labour services being carried out. On some manors a limited number of boon days were normal and more or less match the level recorded in the Bishop of Roskilde's Survey. Boon work on the canons' estates in Sealand seems to have been heavier than work on the estates in Jutland. On Starreklinde the peasants worked three days during the spring and summer and two days a week in the autumn, while in Forsinge the cottars worked 18 days altogether. In Jutland from two to eight days of work was the standard; only the peasants who did not pay any rent in grain were required to perform services.¹⁰⁶

Forced labour at the behest of the Crown is known from 1148, when King Svend Grathe gave the so-called *midsommergæld* and harvest work *dictis dagswercke* of the town of Ringsted to the church in Ringsted.¹⁰⁷ Cartage was a well-known service imposed on peasants by the king from the twelfth century, but labour services directly connected with manorial production do not appear in Danish sources before the second decade of the fourteenth century. If the rentier element in manorial economy was strong at the close of the Middle Ages it was perhaps even more significant at the beginning of the medieval period and during the High Middle Ages.

Nevertheless, a considerable amount of labour was needed on large farms. The labour demands of manorial production in the High Middle Ages seem primarily to have been met by servants and wage-labourers. The term *familia* is sometime mentioned in sources dating from the

¹⁰⁴ "Roskildebispenss jordebog", pp. 21–22, 30, 43, 73, 77, 87, 98, 105.

¹⁰⁵ Kristian Erslev, *Danmarks Riges Historie*, vol. 2, (Copenhagen, 1898–1905), p. 625; Erik Arup, *Danmarks Historie*, vol. 2 (Copenhagen, 1932), pp. 120–121.

¹⁰⁶ *ADJ*, vol. 3, pp. 66–67.

¹⁰⁷ *DD*, 1.2, p. 101. See also chapter on "Rural Levies and Royal Finances".

twelfth, thirteenth, and fourteenth centuries. Whether this term implied slaves, servants, or wage-labourers is difficult to determine, but in the thirteenth century they could hardly be called slaves: they were more likely servants.¹⁰⁸ In any case, the important point is that these documents certify that some kind of manpower was attached to the manors. A few examples showing direct evidence of wage-labourers (*mercenarii*) can be found on Cistercian estates from the late twelfth century.¹⁰⁹

From the lay estates and the lands belonging to the bishops there is no direct evidence of wage-labourers. One reason for this is that there was no need to mention the landless population in charters and deeds. Another reason is that presumably wage-labourers were recruited from the lowest stratum of peasant society. In the fourteenth century a substantial section of the peasantry on the estates of the Aarhus Canons and the Bishop of Roskilde held very small plots of land and sometimes were cottars.¹¹⁰ It is reasonable to suggest that in order to make a living these smallholders were forced to work on the manors as day-labourers.

However, in assessing the importance of labour services in the High Middle Ages it must be taken into account that information about other kinds of rent is virtually absent before the fourteenth century. Only a few scattered records from the twelfth century indicate that money rent was prevalent.¹¹¹ This dearth of information is attributable to a complete lack of surveys and manorial accounts and perhaps also to the free status of the Danish peasantry in the High Middle Ages. The non-landowning peasants, the *coloni* found in the charters from the twelfth and thirteenth centuries, were leasehold tenants according to the image we derive from the land laws. In a paraphrase of the Law of Scania we are told that they took out leases on one-year terminable contracts.¹¹² Information regarding the rents of these peasants derived from two fourteenth-century surveys gives the impression of a fixed rent,

¹⁰⁸ Janken Myrdal and Clas Tollin, "Bryter och tidig medeltida huvudgårdar", in *Trälar. Ofria i agrarsamhället från vikingetid till medeltid*, eds. Thomas Lindkvist and Janken Myrdal (Stockholm, 2003), pp. 133–168.

¹⁰⁹ Hybel, "The Creation", 274–275.

¹¹⁰ *ADJ*, vol 3, pp. 63–67; Christensen, "Ændringerne", (1964), 257–260; Erik Ulsig, "Landboer og bryder, skat og landgilde. De danske fæstebønder og deres afgifter i det 12. og 13. århundrede", in *Middelalder, Metode og Medier*, eds. Karsten Fledelius et al. (Copenhagen, 1981), pp. 138–141.

¹¹¹ See chapter on "Rural Levies and Royal Finances".

¹¹² "Anders Sunesen's paraphrase of the Law of Scania", *DGLK*, chapters 143–149.

the reality being (if the Law of Scania was respected) that the rents could be adjusted each year. In contrast the rents of the manors at farm could be fixed, flexible, or taken out on share-cropping terms.¹¹³

Only few Danish medieval farming contracts exist. In 1306 Clare Abbey, Roskilde, farmed out two holdings in Allerslev on lifetime leases at a money rent of 20 and 24 *marks* respectively and payable over three terms each year. A lifetime lease was also entered into between the Bishop of Ribe and a widow and her sons in 1263. This must have been a very large farm: the rent was 65 *marks* annually for the first six years and 70 *marks* a year thereafter. Our earliest information about farm rents dates from the mid-thirteenth century. In 1259 a canon gave one *mansus* to Roskilde Cathedral: having donated the land he farmed it for the rest of his life, paying an annual money rent of 20 *marks*.¹¹⁴ *Métayage* can possibly be traced back to 1261, when the *villici* of the canons at Ribe are referred to as *partiarii colentes terres isposum*.¹¹⁵ Firm evidence of share-cropping can be found in a deed issued by Bishop Oluf of Roskilde in 1310. Here the *villici* paid one-third of the grain grown on the estates.¹¹⁶ A few cases of *métayage* can also be found in the register of the incomes of the canons of Ribe, which dates from 1291. Some of the canons' lessees paid a fixed amount of grain together with minor payments in kind, but the majority paid a rather indeterminate or flexible quantity of grain.¹¹⁷ This was also the form of rent paid by the *villici* in Jutland to the Canons of Aarhus around 1313, while the main part of the rents paid by their fellows in Sealand was in money. The survey of the estates of the Bishop of Roskilde shows that the lessees paid a fixed rent in grain and perhaps also in money or butter.¹¹⁸

For peasants and cottars living on the estates of the Aarhus Canons, money rent was the norm, but they also paid rent in kind, normally hens but sometimes also a goose or a lamb. The basic rent paid by the Roskilde tenants was in grain or money except in pastoral localities where it was paid in butter. Rents on the estates of the Bishop of Roskilde, both for the lessees of manorial units and for tenant holdings,

¹¹³ Hybel, "The Creation", 273–275.

¹¹⁴ *DD*, 2.1., nos., 275, 371; 2.6, nos. 40, 41.

¹¹⁵ *Ibid.*, 2.1, no. 328.

¹¹⁶ *Ibid.*, 2.6, no. 251.

¹¹⁷ *Samling af Adkomster, Indtægtsangivelser og kirkelige vedtægter for Ribe Domkapittel og Bispestol, nedskrevet 1290–1518, kaldet "Oldemoder" (Avia Ripensis)*, ed. O. Nielsen (Copenhagen, 1869), pp. 65, 74.

¹¹⁸ Hybel, "The Creation", 273–275.

were made up of these basic land rents supplemented with a variety of other dues, primarily consisting of domestic animals: a pig, hens, a lamb, or a goose. In contrast, and as noted above, some of the *villici* farming the manors belonging to the Canons of Ribe at the end of the thirteenth century paid one-third of the grain grown as a land rent, plus, for example, certain quantities of cheese, butter, or wool. Other farmers had to provide domestic animals and dairy products together with a fixed quantity of grain, while the lesser tenants paid only a fixed rent in money or grain. Similarly, around 1315 the Canons of Aarhus demanded a substantial rent in grain and some petty dues from the manors they farmed out, but asked only boon-days, a little money, and some poultry from the lesser tenant farmers.

Apparently it was quite new in the late fourteenth century for both the manors at farm and the tenant holdings of the Bishop of Roskilde to pay a principal land rent plus additional dues, presumably of a more personal nature. Perhaps in 1370 the Bishop of Roskilde was trying to compensate for possible losses of land rent customarily paid in money or kind, e.g. grain or butter, as several entries in the survey lament, by imposing both land rent and additional dues, not merely on the farmers of his manors, but also on his smaller tenants. As a result of the demographic downturn in the fourteenth century, land was abundant and therefore land rent declined. If we compare prices of real estate, mortgage bonds, and rents in the period before 1330 with the years 1330 to 1400 the price of lease land seems to have dropped by approximately 50 per cent.¹¹⁹

Unfortunately no one has yet tried to estimate the value of the various dues in the Roskilde survey by comparing the value of the principal land rent with these additional personal dues. For this reason, and because there are no Danish surveys from the fifteenth century to provide a comparison, it is difficult to say whether the relative burden of the personal dues increased in the Late Middle Ages. The dues appear to have been important throughout the period. Various charters indicate that a system of rents, comparable with the one found in the Roskilde survey, was standard on many estates in the fifteenth century.¹²⁰

In principle the same composition of land rent as pertained on the Roskilde estates can be found in surveys of the manor of Næsbyhoved

¹¹⁹ Christensen, "Nedgangen", 446–465.

¹²⁰ Ulsig, *Danske Adelsgodser*, p. 336.

from the 1510s and in the survey of Mogens Gøye's estates from 1532. The latter collected rent paid in money, grain, domestic animals, hospitality, etc., but grain was the principal form of payment, making up perhaps half the total amount of the land rent. The basic land rent of the peasants on the manor of Næsbyhoved was paid in money or grain. On top of this they gave a variety of smaller dues in money or kind. In Schleswig the land rent was paid in grain, butter, honey, or money, and supplemented with minor dues in cattle, pigs, sheep, lamb, geese, and hens. Unlike the situation in Denmark as a whole, these minor dues were not particularly important in the Duchy of Schleswig, making up a mere six per cent of the land rent.¹²¹ The importance of dues and services in the kingdom from the late fourteenth century onwards was perhaps the landowners' response to dwindling land rents, the relic of a rentier class's successful attempt to push up revenues by exacting economic pressure on the peasants.

Another way of increasing the revenue from landed estates was to extend activities beyond agriculture, by creating fishponds, mills, brickworks, etc. In documents ratifying donations and privileges of land from the twelfth and thirteenth centuries, fishponds, fishing streams, and mills are frequently mentioned.¹²² Watermills were particularly important to the Cistercians: a major motive for choosing Æm as the final site for their abbey was that it was situated between two lakes at different levels between which a canal and a watermill could be constructed.¹²³ Neither the early charters nor the chronicle written at Æm provide information about the incomes derived from these mills. Nothing can be said about revenue from this resource before the fourteenth century. The Canons of Aarhus owned three mills at three locations: Øksenmølle, Grundfør, and Årlev. Each of them gave nineteen *oras* flour.¹²⁴ The Bishop of Roskilde owned 43 windmills and watermills.¹²⁵ Several of the mills made far more profit than the Bishop obtained from manors

¹²¹ Rasmussen, *Rentegods*, pp. 158–162.

¹²² See, for example, *DD*, 1.2, nos. 91 (1145, mill), 126 (1158, fishponds), 143 (1161, mills); 152 (1163, fishponds, mills), 174, (1167–1187, mill); 1.2, nos. 4 (c. 1170, mill), 20 (1171, mill), 49 (1175, mill), 51 (1175, fishing streams), 76, 77, 78, 79 (1178, fishing streams, mills), 95 (1180, fishing streams), 101 (1182, fishponds, mills), 138 (1186, fishponds, mills).

¹²³ *SM*, 2, p. 176.

¹²⁴ *ADJ*, vol. 3, pp. 21, 22, 26.

¹²⁵ "Roskildebispens jordebog", pp. 2, 11, 17, 22, 23, 25, 28, 29, 30, 43, 44, 52, 61, 62, 70, 73, 75, 77, 79, 80, 82, 84, 85, 87, 88, 89, 91, 93, 94, 96, 102, 105, 140.

on lease. Vestermølle in the district of Slagelse gave 28 *marks*; at Dalby there were two mills, one giving 15 *pund* grain, the other 18 *pund* grain and also milling gratis for the manor. The mill attached to the manor at Tuse gave 16 *pund* grain. The farm rent of one *mansus* was about six *pund* of grain, equivalent to the revenue of the mill at Gjorslev. Some mills gave even less. The mill at Regstrup, for example, paid only four *pund* grain. Nevertheless, profit from the mills provided a substantial income for the bishop.

Two hundred years later, in the mid-sixteenth century, almost the same pattern emerges in Eline Gøye's collection of surveys. The only difference now is that the mill 'at the gate' of Krenkerup Manor 'is not assessed'. This mill was possibly managed directly as a part of the manor, while all the other mills, judging from the fact that they are all assessed, were farmed out. Two of these mills at farm, those at Clausholm and Aunsbjerg, also had the obligation of milling for the manors without charge.¹²⁶ This survey lists 31 windmills and watermills.¹²⁷ The rents varied, like the rents of the Bishop of Roskilde's mills in the fourteenth century, but some of the mills in the Gøye surveys paid even less than the bishop's smallest mills. The highest mill rents found in the Gøye surveys are one *last* flour paid by Trevad, Hadsten, and Aarup mills in Eastern Jutland and 16 *pund* flour and 320 eels paid by Strids mill in western Sealand. The lowest rent was one *pund* flour paid by Halle mill in Scania.¹²⁸ Compared to the Gøye family's mills, Queen Christine's mill near Odense was huge. On the other hand it was the only mill she owned in northern Funen. The profit from the mill was 3 *lasts* of flour and 1 barrel of eels early.¹²⁹

As we have seen, milling was not the only additional source of income listed in the Gøye surveys. The cottars in the village of Gieltofte and a peasant at Flintinge, close to Krenkerup Manor in Lolland, had special obligations. They brought clay and wood to the brickworks, while the cottars at Gieltofte also filled and emptied the kiln. It is perhaps surprising to see the task of filling and emptying a brick kiln placed on farm workers, as they certainly were, since they also did five days of ploughing. The production of bricks required skilled labour. This is possibly the reason why brickyard labourers are never mentioned in

¹²⁶ *EGJ*, pp. 69, 222, 328.

¹²⁷ *Ibid.*, pp. 19, 23, 54, 69, 191, 222, 286, 299, 328, 466, 470, 480, 486.

¹²⁸ *Ibid.*, pp. 223, 286.

¹²⁹ *Næsbyhoved*, p. 144; for mills, see also chapter "Rural Resources".

earlier surveys. The four brickyard labourers mentioned at Krenkerup Manor are exceptional. They are probably listed in the survey because they lived on deserted plots of land in the village of Gieltofte and because, in addition to their primary occupation as brickyard workers, they performed a few boon days of agricultural work.

Landed estates were the backbone of aristocratic life and culture throughout the Middle Ages. Manorial production was first seen in the twelfth century. It developed in the framework of farming during the thirteenth and fourteenth centuries and was supplemented with a consistent element of direct management. In the Late Middle Ages farming fell into decay, but this development did not prevent the 'classic' form of medieval manorial production from emerging at the end of the epoch. However, peasant production was dominant even when manorial production peaked in the fourteenth century. A peasant farming system characterized the estates of the Bishop of Roskilde. In just 62 out of 224 villages (i.e. 28 per cent) in which the bishop owned land there were manors or units belonging to a manor.¹³⁰

This distribution between peasant holdings and manors clearly foreshadows the typical Danish peasant farming system known from the sixteenth and seventeenth centuries, but it is also reminiscent of the preceding centuries during which small-scale peasant production dominated the world of agriculture. The further back in history we move the more dominant peasant production appears to have been: before 1100 there are no signs of any large-scale agricultural production in Denmark at all.

¹³⁰ Hybel, "Landownership", p. 195.

RURAL RESOURCES

The large collection of Danish proverbs dating from the first half of the fourteenth century and known as “The Proverbs of Peder Laale” can be used to illustrate many areas of medieval life. There are problems, of course, in exploiting a source of this kind, because proverbs tend to be international and are often very old, as well as lacking any kind of context. Many of the proverbs in the Peder Laale’s proverbs are found in other European collections. However, some of them clearly derive from Scandinavia and must presumably have had some relevance in the society which recorded them.¹ If we leave aside the problematic aspects of the material and avoid pressing the sources too far, we can still form a vivid mental picture of the daily lives of people living in the predominantly rural society that existed in medieval Denmark.

The dominant landscape of the proverbs was made up of fields, woods, and beaches, while towns were simply places at a distance to which wagons headed.² In the countryside were the familiar farmyard creatures, like dogs, horses, oxen, cows, hens, and pigs, but there were also many wild species, such as wolves, hares, worms, bees, and a variety of birds. Herring and porpoise swam in the sea and an occasional whale might be stranded on the beach. Brooks and rivers crossed the country. Woods provided timber and firewood. Moors there were too, and sometimes heather to be burned: as we know from other sources, this was the traditional way of keeping down vegetation in moorland areas.³ Grain was cultivated in the fields, which had to be carefully fenced.⁴ Wheat is mentioned by name, but—like other cereal crops—this was often followed by weeds, especially corncockle.⁵ The corn had to be ground, of course, and this might well take place at a water mill.⁶ Hay was a fundamental resource that needed to be cut and husbanded with a watch kept on the seasons: “Woe anyone who sells his hay when

¹ Aage Hansen, *Om Peder Laales danske ordsprog* (Copenhagen, 1991).

² *Peder Låles Ordsprog I:1*. ed. Iver Kjær and Erik Petersen (Copenhagen, 1979), no. 441.

³ *Ibid.*, no. 1056.

⁴ *Ibid.*, no. 923, 975.

⁵ *Ibid.*, no. 798.

⁶ *Ibid.*, no. 874, 1074.

the peewit comes".⁷ It was certainly not wise to sell hay too early in the year, when new grass was expected any minute. Grazing areas had to be protected with fencing.⁸ Produce from garden and woodland, such as cabbages and nuts, was also enjoyed.⁹ Fruits like cherries and apples were welcome: "A fine apple tree often carries fine apples", but beware: "a bad root does not give good apples".

The shared universe was made up of the farm, the barn, and the crops.¹⁰ Skilled farmhands sowed, ploughed, and harrowed the fields and gathered the hay into ricks using hayforks and rakes.¹¹ Cattle played a vital role. Cows stood in their stalls to be milked by women. Horses drew the harrow and oxen the plough, the latter to be butchered in due course.¹² Horses were sometimes unwelcome intruders: "What do horses do in the fields beside biting the ears of the corn or shitting on the stubble?"¹³ We hear a little less of the pigs, although they were equally out of place in the fields.¹⁴

A change in the balance between grain and cattle production

The proverbs mirror an agricultural practice which balanced grain production and cattle breeding. This balance had been a constant preoccupation since prehistory but the Middle Ages stand out as a new phase in the relative relationship between these two types of farming.

In Denmark, as in large parts of the rest of Europe, an expansion in grain-based agriculture took place in the centuries on either side of the year 1000. This increased emphasis on grain production remained unchanged until recent times, although the Late Middle Ages did see the reintroduction of an agricultural mode based on meadows and woodland. In cereal farming a number of important changes took place. The most logical consequence of the expansion in grain-based agriculture was that the cultivated areas of the individual farm expanded. Our knowledge of field sizes in the Viking Age is admittedly

⁷ Ibid., no. 369.

⁸ Ibid., no. 431.

⁹ Ibid., no. 1176, 682.

¹⁰ Ibid., no. 33, 440.

¹¹ Ibid., no. 414.

¹² Ibid., no. 686, 707, 526, 111, 530, 750, 942, 598, 1101, 578, 508, 628.

¹³ Ibid., no. 1055.

¹⁴ Ibid., no. 727, 794.

not extensive but archaeologists have revealed the plots (*tofter*) on which eleventh- and twelfth-century farms were built. If we assume that these plots were virtually identical with the cultivated area associated with individual farms it can be argued that there was a general growth in size from 2–5 hectares in the Viking Age to an average 15 hectares in the medieval period.¹⁵

At the same time there are indications that the quantity of livestock being kept was decreasing. Archaeological excavations in the west Jutland village of Vorbasse have established a phase in its development c. 700 when there were a number of smaller farms with stalls for 20–30 cattle. By the eleventh-century the village consisted of a large farm with space in its byres for about 100 cattle, plus smaller farms with stalls for about 34 animals. At Omgård, another farm excavated in west Jutland, we hear of livestock numbering 80.¹⁶ Perhaps more typical is a Viking Age farm in the area south of the town of Ribe which had approximately twelve animals in its byre.¹⁷ By the High Middle Ages such numbers of livestock seem to have been the exception.¹⁸ A fair, albeit conservative, estimate of the livestock to be found on an average thirteenth-century farm would be two horses, two oxen, between two and four cows, and a few sheep.¹⁹ Our material from this time is not completely reliable, as it mainly comprises lists of cattle supplied by landowners to their tenants, the *villici*, and may thus exclude the cattle the tenant himself brought into the farm. Generally speaking, the number of animals kept on farms in the High Middle Ages was quite modest: it was only in the south-western part of Jutland and in west Schleswig that cattle farming was widespread and indeed certain farmers are known to have kept many head of cattle there.

Investigations of bones uncovered in the towns of Hedeby and Schleswig show that the inhabitants switched their consumption from pork to beef during the transition from the Viking Age to the medieval

¹⁵ Hoff, *Lov og landskab*, pp. 84–121.

¹⁶ Leif Christian Nielsen, "Omgård", *Acta Archaeologica* 50 (1980), 173–208.

¹⁷ Stig Jensen, "Gårde fra vikingetiden ved Gl. Hviding og Vilslev", *Mark og Montre* (1986), 5–26.

¹⁸ Hvass, "Vorbasse", 127–136.

¹⁹ Bjørn Poulsen, "Agricultural Technology in Medieval Denmark", in *Medieval Farming and Technology. The Impact of Agricultural Change in Northwest Europe*, eds. Grenville Astill and John Langdon (Leiden, 1997), pp. 115–145.

period.²⁰ A possible reason for the increased import of cattle at a time when the quantity of livestock on individual farms had dwindled could be that the total number of farms was increasing rapidly. By acting collectively the numerous farms could satisfy an urban demand for grain and meat and the sources show that it was professional butchers who organized this supply from around 1200.²¹

After the millennium we see a shift from an economy based on small fields, cattle grazing in meadows, and pigs rooting around in the forest to an economy primarily based on grain. Presumably even Iron Age villages had some form of common grazing but in the beginning of the Middle Ages the expansion of the cultivated areas led to an expansion of common use. Archaeological finds and written laws both testify to a development from individually owned and carefully fenced fields (*Blockfluren*) to more collective field systems. A paragraph in the Scania Law suggests that as early as 1160 there were parts of Scania with one, two or even three fields in common use. We must believe, therefore, that a trend towards the common use of fields was taking place in the period 1000–1150.²² In parts of the country where fields were fenced and held in common, i.e. where open-field systems existed, the construction and maintenance of fences were clearly matters of prime importance. The Law of Jutland, dating from 1241, sets out explicitly the responsibility of the individual farmer in relation to shared fencing. The Law stipulates that the “rye fence” should be set up by Easter at the latest. The fencing of the spring corn should be finished by Whit Sunday and should remain there until Michaelmas unless all the grain had been harvested before then. In the thirteenth century the open-field system was solidly established in the eastern parts of Denmark, with fixed dates for the erection of shared fencing and agreements in place to govern issues arising from cultivation and shared common land. A rental dated 1313 states that two-field systems existed in a number of villages around the east Jutland town of Aarhus, while in 1339 we see a landlord in Sealand selling a tenant farm with four adjacent small farms to an abbey: the farmland is clearly specified and with the farm

²⁰ Hans Reichstein, “Vergleichende Betrachtungen zur Nahrungsversorgung der Bewohner von Haithabu und Schleswig”, in *Haithabu und die frühe Stadtentwicklung im nördlichen Europa*, eds. Klaus Brandt, Michael Müller-Wille and Christian Radtke (Neumünster, 2002), pp. 169–179.

²¹ See chapter on “Crafts”.

²² Hoff, *Lov og landskab*, pp. 163–209.



Ill. 6. Fresco from the church of Reerslev, near Copenhagen, c. 1460–80

come two oxen, as well as “fields, meadows, woods and other things in the three ploughed areas called fields (*vange*) and inside the four boundaries of the field (*markeskel*)”.²³

²³ Frandsen, *Vang og tægt*, p. 7.

It is apparent that this expansion of the cultivated area and an increase in communal farming were among the main factors leading to a change in settlement behaviour. A new stability arose in rural settlements and the wanderings which could be observed during the Iron Age virtually ground to a halt.²⁴ Alongside an increase in grain cultivation, new technologies were also introduced.

Grain and grain-related technology

Rye, barley, and oats were all grown in Iron Age and Viking Age Denmark. This is clearly shown by grain finds from settlements, as well as from pollen analyses.²⁵ The archaeo-botanical finds also show that rye was introduced on a large scale during the Iron Age for use during the winter. Nevertheless, it can be argued that rye became more common during the Viking Age and the Middle Ages.²⁶ It is not until about 1100 that we have documentary evidence in Denmark for the long broad strips that lent themselves most effectively to the cultivation of rye. The oldest example of such strips, which were often high-backed and gave effective drainage to the crop during the critical winter period, has been found at Filsø in west Jutland.²⁷ Furthermore, the expansion of rye led to the introduction of bread: from the Early Middle Ages onwards we see ovens used for home baking. Oats also seem to have become more common during this period, except in the moorlands of Jutland, which were not suitable for their cultivation.²⁸

The appearance of larger and better drained fields where more rye and oats could be grown was closely connected with other technological innovations. Most important in this respect was the introduction of the heavy mouldboard plough, which turned the furrow, as opposed to the

²⁴ See chapter on "Villages".

²⁵ Bent Odgård, "The Holocene vegetation history of northern West Jutland, Denmark", in *Opera Botanica*, 123 (1994), pp. 1–171; Peter Hambro Mikkelsen, "Fra bondens mark. Arkæobotaniske undersøgelser af jernalderens landbrug", *Naturens Verden* (2002, 6–7) 38–45.

²⁶ *The cultural landscape during 6000 years in southern Sweden—the Ystad Project*, eds. Björn E. Berglund, Mats Ridderspore, Lars Larsson, Nils Lewan and Steen Skansjö (Ecological Bulletins, 41) (Copenhagen, 1991).

²⁷ Ole Vejrbæk, "Om agerryggene oprindelse og udvikling", *Bol og By, Landbohistorisk Tidsskrift* (2003: 1–2), 133–187.

²⁸ Rainer Pasternak, "Hafer aus dem mittelalterlichen Schleswig", *Offa. Berichte und Mitteilungen zur Urgeschichte, Frühgeschichte und Mittelalterarchäologie* 48 (1991), 363–380.

existing *and* which only scratched one on the surface. The coulter of the mouldboard plough could also cut through heavy soil and could therefore be used for deeper ploughing. The customary wheeled for-train of the heavy plough also helped to take its weight. It is difficult to establish a date for the introduction of the mouldboard plough. In south-west Jutland traces of a mouldboard plough have been found from as early as the fourth century and there is no reason why such early dating could not have occurred in other parts of Denmark. It is pretty clear, however, that its breakthrough in most of the country should generally be placed in the period 1000–1100.²⁹ This matches the dating of the first high-backed fields, which cannot be created without the mouldboard plough.

Horses were needed to pull the harrows that now appear as an important element in farming. The harrow broke up lumps of soil, removed weeds, and spread manure. Horses were also useful in distributing the crops, transporting grain to mills or to the emerging markets in towns. A harness which permitted the horse to work as an effective draught animal had been developed in the late Iron Age and the Viking Age, while the use of horseshoes spread from the eleventh century and became common in the thirteenth century.³⁰ Bone finds from the twelfth and thirteenth centuries have established that horses were generally larger than before and were used more frequently for farm work.³¹

Harvesting the larger fields was made more efficient with the introduction of a new kind of sickle. Throughout the medieval period the iron sickle was customarily used for harvesting. However, this tool existed in two forms: there was the angled sickle, in which the blade was placed in an angle to the handle, and there was the longer bow-sickle or “balanced sickle”, with a rounded blade to ease the harvesting. The use of the bow-sickle in Denmark apparently spread from around the year 1200. There is sound evidence to suggest that the first use of a flail to thresh grain can also be dated to this time.³²

The most dramatic result of this spread of grain cultivation, however, was to be found in the construction of mills. Here, written and

²⁹ Ethelberg et al., *Det sønderjyske*, p. 28.

³⁰ Terje Gansum, “Hestesko og hesteskosøm som kildemateriale”, *Meta*, (2002: 2), 30–38; Poulsen, “Agricultural Technology in Medieval Denmark”, pp. 115–145.

³¹ Dirk Heinrich, Harald Pieper and Hans Reichstein, *Tierknochenfunde der Ausgrabung Schild 1971–1975* (Neumünster, 1995).

³² Poulsen, “Agricultural Technology in Medieval Denmark”, p. 130.

archaeological evidence both indicate that manually-operated querns were replaced by water mills around the year 1100. Mills are mentioned in sources dating from 1131, 1133, 1135 and onwards, while archaeology dates them to the second half of the twelfth century. The finds show that horizontal mills were used in Denmark. Constructing mills that could exploit water power from the many small rivers in the country was not easy: archaeological finds indicate that these mills were huge, with gears and massive millstones weighing more than 100 kilos, evidence of considerable financial investment and technological knowledge. It is possible that religious houses were active in the diffusion of this technology. The sources reveal that in the late twelfth century Cistercians from Esrum Abbey, Sealand, were assisting their brothers at the nearby Augustinian monastery of Æbelholt in erecting water constructions. Similarly in Jutland we see that monks at the monastery of Vitskøl were helping brothers at Øm Abbey to build a mill.³³ The dating of a mill found at the latter Cistercian house shows that one of the first achievements of the monks when they arrived around 1170 was the building of a large mill.³⁴ On the other hand, the early written sources are scanty and may even indicate that secular landlords led the way. In 1133, Archbishop Asser purchased the manor (*curia*) at Värpinge, in Scania, complete with a mill, and then donated the whole estate to Lund Cathedral.³⁵ The vendor could only have been a local magnate, i.e. a layman.

Horse mills were used in the thirteenth century. A hagiographic text from this period describes a boy miraculously healed after being injured by a horse-driven mill, while another source mentions a horse-powered mill at Sorø Abbey. Windmills, which appear in England and Flanders in the 1180s, are noted in Danish sources in 1259 and 1261.³⁶ The numerous mills erected in the Early Middle Ages must have fulfilled their purpose, as manual querns disappeared almost completely. In the small Scanian town of Tommarp alone there were five watermills in 1161, while archaeological finds show that fertile rural areas in the twelfth century were served by mills that were situated on average only

³³ *DD*, 1.3, pp. 367–8 (II, 35). Christian Fischer, *Tidlige danske vandmøller. To middelalderlige vandmøller ved Tovstrup og Vejerslev* (Aarhus, 2004), p. 28.

³⁴ Fischer, *Tidlige danske vandmøller*, p. 87.

³⁵ *DD*, 1.2, no. 56.

³⁶ *DD*, 2.1, no. 274, 333.

two to four kilometres apart.³⁷ It is also quite telling that the survey of the Bishop of Roskilde's estates, drawn up in 1370, shows that on the island of Sealand the ratio of manorial mills to farms was about 1:45, meaning that virtually every second or third village had its own mill.

From the beginning of the Middle Ages onwards Danish agriculture became grain-based: seasonal work was closely tied to its cultivation, as indeed it remained until recent times. For instance, boon work carried out in 1532 by the 270 tenants at the manor of Åhus, an estate owned by the Archbishop of Lund, was almost all related to grain. The work followed the seasons and was an all year round commitment. Ploughing was carried out from 28 April to 18 May. Oats were sown from 19–25 May. Dung was spread on the fields from 23–29 June. Then came haymaking in the meadows from 30 June to 24 August. By the end of July the rye harvest had also begun and this lasted until 10 August. The barley harvest followed and finally, from 25 August, the oat harvest. By 7 September the grain harvest was over, and the sheaves bound and carted off to the barns. From 15 September to 13 October the fields were ploughed and harrowed and rye was sown. Threshing in the barn lasted for months, from 27 November to January the following year.³⁸ There can be no mistaking the central role that grain occupied in Danish agriculture.

Geographical variations

It is clear that during the early medieval period a new technological complex centring on the dominance of grain production was introduced and that this complex would set the scene in the centuries that followed. On the other hand, its practical application varied from region to region. The division of the Danish countryside into areas dominated by agriculture, woodland, and moorland was very old and already firmly established by the beginning of the Middle Ages.³⁹ The degree to which the grain economy took root therefore depended on geography.

³⁷ DD, 1.2, no. 143. Hoff, *Lov og landskab*, p. 76.

³⁸ RA, Reg. 108 A. Pk. 69. 1532–33. Åhus slots regnskab.

³⁹ See chapter on "Woods and Moors" and on "Arable Land".

King Valdemar's Survey (1231), albeit unsystematic in its approach, makes it quite clear that the levies paid to the king varied greatly from region to region, and included dues paid in rye, oats, barley and wheat, cattle, pigs, sheep, horses, and honey. However, we have to move on to later sources to gain a more detailed and thorough knowledge of Danish agrarian geography. It is information from the seventeenth century that gives us a clear idea of the regional differences in Denmark in terms of agricultural production. In the east of the country, i.e. on the islands and in eastern Jutland, open-field systems predominated, with large fields enclosed by temporary fences. Here a three-year crop rotation was common. On the other hand, the sandy soils of western Jutland were generally characterized by small fenced fields which could be allowed to lie fallow for anything from three to six years. In the northern parts of Scania small enclosed fields were also found. While the centrally situated open-field systems were fully grain based, those in north Scania and west Jutland were dependent on commons, pastures, and moors, and therefore livestock was particularly important.⁴⁰

Both woods and meadows could sustain large numbers of cattle and where these resources were present the grain economy diminished. The Bishop of Roskilde's Survey (1370) thus refers to both the grain-based regions of Sealand, where peasants paid their rents in grain, and other regions with greater areas of woodland, where they paid their rents in butter or cash.⁴¹ Rents in butter were very common in areas rich in woodland, such as the north-eastern parts of the realm, i.e. Halland, Blekinge, and north Scania. It is also clear that from very early times west Jutland and west Schleswig were orientated towards grazing, their rich grass meadows supporting large herds of cattle. Written deeds from these regions abound with references to meadows and small plots of land often measured according to the duty they could produce in terms of hay. For instance, in 1305 a burgess of Ribe gave two meadows to the cathedral of that town: they were located in west Schleswig villages, one paying an estimated 46 loads of hay, the other 20 loads.⁴² The farms in this region more typically paid their rents and duties in dairy produce. In 1291, for instance, the Bishop of Ribe received large quantities of butter and cheese from his *curiæ villicales* in west Schleswig.

⁴⁰ Frandsen, *Vang og tægt*.

⁴¹ Bjørn Poulsen, "Mønter i den senmiddelalderlige danske agrarøkonomi. Nogle bemærkninger", *Hikuin* 11 (1985), 227–236.

⁴² *DD*, 2.5, no. 390.

Just one farm on the small North Sea island of Rømø paid him 12 barrels of butter and 120 cheeses a year.⁴³

In Jutland, further to the north, we find the moorland regions. Around 1290 a *villicus* from mid-Jutland paid annual duties to his lord comprising not only 50 cheeses and a barrel of butter from every cow, but also wool from his sheep (“lanam dicitur *vul*”).⁴⁴ Here we are clearly in a region where the moors were growing ever larger and the woods were disappearing. By the late twelfth century we hear of a farm in this region which possessed peat and “moorland with cattle grazing”.⁴⁵ These areas provided grazing for both cattle and sheep, while the heather was cut for winter fodder. In many ways this moorland heather was replacing wood, as it was used for fuel and house-building, as well as being spread on the land as a manure. The latter was produced by taking peat turfs to the barns, mixing them with cattle dung, then letting them rot down well before carting the resulting compost off to spread on the small cultivated fields. In 1473 a noblewoman retired in her old age to the priory at Ducholm, north Jutland, situated in a moorland area. Characteristically, she entered into a contract whereby in return for her donation she and her maid could live at the priory and receive, not only fixed allowances of beef, pork, mutton, goose, butter, eels, cod, grain, beer, and salt, plus three loaves a day and fodder for her cow, but also five loads of peat and four loads of heather every fortnight.⁴⁶

Moorland, woodland, and meadow were all conducive to cattle breeding but different conditions were needed for pig farming, which were mostly concentrated in heavily wooded areas. As noted above, the bone material found in Hedeby and Schleswig indicates that the number of pigs being kept was already decreasing during the transition from the Viking Age to the Middle Ages and this was doubtless attributable to the extensive clearing of forests taking place at that time.⁴⁷ Subsequently, pigs were principally kept in wooded regions or in copses surrounded by intensively cultivated areas. The late medieval opposition between areas comprising predominantly meadows and moorland and those dominated by forests is made clear in a survey of

⁴³ *RO*, p. 73.

⁴⁴ *RO*, p. 65.

⁴⁵ *DD*, 1.3, no. 110.

⁴⁶ *DhD*, no. 190, p. 125.

⁴⁷ Reichstein, “Vergleichende Betrachtungen”, pp. 169–179.

the pigs fed or “masted” in Schleswig in 1540. Of course, pigs were kept throughout this area but there are marked variations in the average number masted by individual peasants. The lowest figures derive from areas near the marshes on the west coast, where in two districts (*herreder*) an average of only 2.7 and 4.1 pigs per peasant were put out to mast. The situation was quite different in wooded areas, such as the extensive Kroppe Busch: here peasants had on average 10–13 pigs out to mast, with some having up to 40 pigs foraging.⁴⁸ In return for permission to mast their pigs in the lord’s woods it was usual for peasants to give the lord every tenth or sixth pig. These payments were carefully recorded. It is evident that the forests of east Jutland were practically over-run with pigs. In 1492, some 4,000 pigs were fed or masted at Boller, a manor in this region.⁴⁹ In other parts of Denmark, the situation was similar: in 1509 the royal estate or *len* on the island of Falster received annually some 1325 pigs from peasants living there, which must mean that the island sustained more than 10,000 pigs in all. Even in the High Middle Ages the forests of northern Scania and Halland were centres for pig breeding. In *King Valdemar’s Survey* (1231), for instance, we read that Bjäre, the most northern district (*herred*) in Scania, paid the king 102 pigs a year.⁵⁰

Bee-keeping was of great importance throughout the whole medieval period. The demand for honey was constant, as it was the only source of sweetness available, and of course quantities of beeswax were needed for candles and seals.⁵¹ As early as the thirteenth century, we find bee-keeping mentioned in the sources, either referring to duties paid in honey, as in *King Valdemar’s Survey*, or in the provincial laws, where the keeping of beehives was strictly regulated. From the beginning bee-keeping was found in woodland and moorland areas and the expansion of the moors in the mid-west regions of Jutland doubtless encouraged the production of honey. In late medieval sources we see how important bee-keeping was in the areas of poor soil in mid-Jutland, often fully compensating peasants for what they lacked in grain production.⁵²

⁴⁸ Ethelberg et al., *Det Sønderjyske*, pp. 690–91.

⁴⁹ *Rep.*, 2. ser., 7105.

⁵⁰ *KVJ*, p. 24.

⁵¹ Erik Husberg, *Honung, vax och mjöd. Biodlingen i Sverige under medeltid och 1500-tal* (Göteborg, 1994); Eva Koch, “Vingede husdyr”, *Skalk* (2000: 3), 20–29.

⁵² Poulsen, “Middelalder”, pp. 159–192.

The time variable

The peasant farm, *bondegården*, was the predominant unit of production in medieval Denmark but of course we cannot ignore the fact that there were great differences in the size of these farms and that their relative differences varied over time.

It is not easy to determine the shifting relationship between manorial production and peasant farming. Generally speaking, peasant production constituted the most important sector of farming in the period 1100 to 1350 but, as noted in the last chapter ("Manors"), it appears that demesne production spread in the period 1200–1300 and also that most demesnes were farmed out in the fourteenth century. The Viking Age population of Denmark was fundamentally comprised of free men, *bønder*, and their slaves, *trælle*. During the twelfth century a new group was created: tenants, *landboer*, while by 1250 the slave element had virtually disappeared. In time, tenants would constitute the most numerous group in rural society. In the twelfth and thirteenth centuries it is possible to imagine that agrarian dynamics rested largely on manors and monasteries. Certainly the landowners, whether royal, monastic or lay, appear to have waged an aggressive policy which led to the drastic reduction of commons and woodland discussed elsewhere in this book. For instance, in the 1170s the large farms belonging to the Cistercian abbey at Esrum, north Sealand, had well-established hamlets (*torper*) around their periphery, while in 1198 we hear that the north Sealand manors of Holbæk and Læsøholm were surrounded by four and five newly-founded hamlets respectively.⁵³ It seems likely that *landboer* operating under the protection of their landlords had cleared the land and opened the country for intensive grain production.

On the manors or large farms leased out (*curiæ villicales* or *brydegårde*) it was normal for landlords to supply livestock, grain, and important tools. A *curia* belonging to the Canons of Ribe in the village of Simmersted, Jutland, received eight oxen, 12 cows, several wagons, and a plough, an unusually liberal allocation.⁵⁴ Inventories from 11 *curiæ villicales* dated 1295–1339 make it clear that normally only two to four oxen would be supplied for haulage.⁵⁵ In the 1290s three farms in south Jutland had to share six oxen and two horses, while two other farms

⁵³ *DD*, 1.3, no. 77, 253.

⁵⁴ *RO*, p. 81.

⁵⁵ Poulsen, "Agricultural Technology in Medieval Denmark", p. 130.

apparently shared eight oxen. Two farms on the island of Funen shared two oxen and four horses. The introduction in the High Middle Ages of new ploughs using the expensive ox-hauled mouldboard was probably primarily the reserve of landowners. Manors and religious houses were also alone in having the capital to build mills and a number of these were constructed from 1100 onwards.

The period after 1350 was marked by a strong and wealthier peasant class.⁵⁶ The demographic crisis altered the land/man ratio, resulting in a new distribution of land and creating a dominant group of substantial peasant farms: of these, 85 per cent were tenant farms and 15 per cent freehold farms. The very fact that peasant farms were growing must have resulted in increased productivity for the peasant class as a whole. There was more land available and the distribution between cultivated land and pasture achieved a better balance. There were also innovations that enhanced productivity. While peasant farms exhibited a fundamental continuity, new methods were also being introduced. The most fundamental change was the general intensification of cattle breeding, a trend encouraged by better access to grazing and meadows. We see an example of this in the 1370s, when a royal bailiff in northern Sealand stocked peasant farms, both freehold and tenant-run, with 95 cows.⁵⁷ In a period characterized by a diminished workforce it was clearly good business sense on the part of landlords to invest capital in improved cattle breeding and in larger herds that could be tended by peasants. This general trend led to more specialized cattle farming, a process which accelerated in the fifteenth century. While four to five cows seem to have comprised the stock on an average peasant farm in the early 1400s, there are examples of herds totalling 15 cows by the end of the fifteenth century.

In a similar way, manors reduced their grain production and concentrated on the use of meadows and woods. From surviving inventories we can see how landlords were building up their cattle stock. Two early fifteenth-century inventories, from the manors of Højstrup in south Sealand (1406) and Møgeltønder in west Schleswig (1417), reveal

⁵⁶ For a recent theoretical assessment of the changes that took place in England, see Harry Kitsikopoulos, "The Impact of the Black Death on Peasant Economy in England, 1350–1500", *The Journal of Peasant Studies* 29, 2 (2003), 71–90.

⁵⁷ Bjørn Poulsen, "Korn eller kvæg: Landbrugets specialisering i senmiddelalderen belyst ved studier på Stevns og i Odsherred", *Bol og By. Landbohistorisk Tidsskrift* (1985:1), 7–20.

that there were then only 12 and 14 cattle being kept in their stalls respectively. During the fifteenth century the size of herds on manors doubled, typically to around 30 cattle, and on some farms there were far more. The manors of Ågård, in north Sealand (1495) and Hallen, in Halland (1503) had 52 head of cattle apiece. In 1536, 60 cows were kept on the Scanian manor of Flynge. These cows were primarily for milking but during the Late Middle Ages the breeding of beef cattle increased and soon overtook dairy production.

In time beef cattle also overtook horse breeding, which had enjoyed a boom period from the twelfth to the fourteenth centuries. Denmark exported horses to other parts of Europe, amongst them France. This was an enterprise catering almost entirely for the trade. In 1178 the Abbot of Ste.-Geneviève in Paris praised the horse he had received from Denmark and speaks of “the joyful softness of its coat and mane, its arched neck, its muscular and well-formed hindquarters, its firm belly, its smooth flanks, its golden colour”⁵⁸ Sources from the late twelfth century onwards reveal that king, nobility, and clergy engaged in horse breeding on a large scale, with the animals running half-wild on small islands or fenced woodland, the so-called ‘horse gardens’ (*hestehaver*). Indeed the Law of Jutland seems to indicate that noblemen’s paddocks were taking the place of common fields formerly shared by village communities. From the mid-fourteenth century the demand switched to cattle, although the export of horses remained important until the late fifteenth century.

By about 1400, salted meat and hides were being shipped from Denmark to Hanseatic towns like Lübeck and Hamburg, while cattle and oxen were also being driven south.⁵⁹ The mid-fifteenth century saw the creation of a thriving European market for oxen and bullocks, the latter staying on farms until they were four or five years old. The constantly increasing demand for meat from north German and Dutch towns had significant consequences for peripheral areas of Europe, like Denmark and Hungary.⁶⁰ Cattle were bred in huge numbers and exported. On some Danish manors, large stocks of oxen were bred. In 1495, at the manor of Aagaard, in north Jutland, 57 oxen were “on fodder” in

⁵⁸ *DD*, 1.3, no. 82.

⁵⁹ Poul Enemark, *Dansk oksehandel 1450–1500. Fra efterårsmarked til forårsdrivning* 1 (Århus, 2003), pp. 29–42; Ian Blanchard, “The Continental European Cattle Trade, 1400–1600”, *Economic History Review* 39,3 (1986), 427–460.

⁶⁰ See chapter on “Commodity Trade”.

the byres: peasants all over the country followed the same trend.⁶¹ In the second half of the fifteenth century and throughout the whole of the sixteenth century many Danish peasants produced and sold beef cattle and also frequently paid fines in oxen. The sale of oxen could be conducted at local towns just as successfully as at foreign markets. The customs accounts from Gottorp, near the town of Schleswig, for the 1480s record peasants from neighbouring villages who passed through on their way to the local town of Schleswig, driving anything from two to seven oxen apiece. Meanwhile, prosperous cattle-traders accompanied their huge herds, driving hundreds of cattle or oxen down from western parts of the country to the big international markets. West Schleswig saw a particularly pronounced increase in ox-breeding on the part of peasant farmers. In 1470, for example, a peasant from the North Sea island of Nordstrand had all his belongings confiscated, including three horses, eight pigs, 54 sheep, nine cows, six oxen, and three young steers.⁶² Oxen were being bred specifically for the market. While it is true that wealthy landowners gradually took over much of the profit in this lucrative trade, it is also the case that ox-breeding on so grand a scale from the late fifteenth century onwards must have caused a revolution in terms of the cash income and marketable output of peasant farms, one that engendered a radical specialization in those large areas of the country where it was common.

The late medieval period saw a cattle-based economy develop, especially in the western parts of the country, on a scale hitherto unknown. The breeding of pigs, goats, and sheep was also expanding at this time and on some manors we see flocks of more than 100 sheep. Fundamentally, however, grain retained its predominant position and in some regions traditional grain specializations were enhanced. Normally wheat growing in Denmark was limited but *King Valdemar's Survey* (c. 1230) confirms that wheat was grown on the south Danish islands of Fehmarn, Ærø, Falster, and Møn, as well as on the island of Samsø, just off Århus.⁶³ In the following centuries two areas in the south of Denmark, Lolland and Als, were apparently wheat-producing centres. Here a real sale production developed. It is tempting to relate this to the field system that can be documented on the island of Lolland in 1682

⁶¹ *DM*, 3. ser., 3, p. 284.

⁶² Albert Panten, "Die Nordfriesen im Mittelalter", in *Geschichte Nordfrieslands* (Heide, 1996), p. 96.

⁶³ *KVJ*, pp. 5, 14, 16, 21.

and which presumably goes back to the Late Middle Ages. Probably taking its model in other regions famous for grain specialization, such as Mecklenburg and Pomerania, the island of Lolland developed rotation systems using four or five fields.⁶⁴ As in Mecklenburg, the people of Lolland created this field system specifically to increase productivity for export to the Hanseatic markets. It is therefore not surprising that this region took the lead in introducing the scythe for reaping in place of the ancient sickle. In 1505 we find the grain scythe being mentioned for the first time in Denmark in a source relating to a peasant farm on Lolland.⁶⁵

Presumably it was their close proximity to the Hanseatic towns which stimulated peasants to develop a market production from the southern Danish islands. They frequently sailed to northern Germany in their own boats, carrying horses, slaughtered cattle, pigs, grain, and peas. In this case it appears to have been market forces that brought about change. A transformation of a different kind was brought about by the king and his nobles: the intensified cultivation of hops which took place during the fifteenth century. Hops can easily be grown in Denmark (and in present-day Sweden) and the variety *humulus lupulus* can be identified in archaeological finds from at least the thirteenth century.⁶⁶ This must be taken as an indication that hop beer was produced locally, a trend influenced by brewers in north German towns who produced hopped beers for export by sea in the thirteenth century.⁶⁷ Local hop-growing must have been limited, however, for we see large quantities of hops imported into Denmark, especially from Mecklenburg, in the Late Middle Ages. This was a traffic which the king and his noblemen attempted to influence. In 1446, landowners in Lolland stipulated that

⁶⁴ Frandsen, *Vang og tægt*.

⁶⁵ H. Zangenberg, "En lollandsk Gårds Inventar i 1505", *Lolland-Falsters historiske Samfund, Aarbog*, 16 (1928), pp. 36–50; Poulsen "Agricultural Technology in Medieval Denmark", p. 137.

⁶⁶ Sabine Karg and Daniel Günther, "Der Einfluss der Hanse auf mittelalterliche Ernährungsgewohnheiten", in *Centre. Region. Periphery. Medieval Europe Basel 2002*, vol. 1, eds. Guido Helmig, Barbara Scholkmann and Matthias Untermann (Hertingen, 2002), pp. 140–146. There are two isolated eighth-century finds of hops from the town of Ribe (p. 143).

⁶⁷ On hops and German beer brewing, see Franz Irsigler, "Ind machdem alle lant beirs voll". Zur Diffusion des Hopfenbierkonsums im westlichen Hanseraum", in *Nahrung und Tischkultur im Hanseraum*, eds. Günter Wiegelmann and Ruth Mohrmann (Munich/New York, 1996), pp. 377–397; Richard W. Unger, *Beer in the Middle Ages and the Renaissance* (Philadelphia, 2004).

all peasants living on the island there were required to cultivate 30 hop plants, while in 1473 a similar order was given to peasants in Funen, who were obliged to grow 60 hop plants apiece on their farms.⁶⁸ In 1522 a national-wide decree was issued by the king requiring that every peasant in the country plant 10 hops “or more”, and a similar decree in 1537 attempted to ensure that every peasant had at least five hop plants.⁶⁹ The point of these laws, which have parallels in medieval Sweden, was clearly to limit the purchase of hops for brewing. Of course, at the same time it also gave peasants a product they could market and in this way reduced imports from abroad. An example of private enterprise is cited in a sixteenth-century source: in 1538 a peasant from a village outside Aabenraa, in Schleswig, sold a quantity of hops to the local royal officer for 16 *marks* and 14 *skilling* and furthermore was lucky enough to repeat this lucrative sale the following year.⁷⁰

There is little doubt that peasant production was becoming increasingly market-orientated in the Late Middle Ages. The market might be accessed by selling cattle, grain, hops, or other produce, but the tendency itself is clear enough. As already noted, there were occasions when ships, *skuder*, owned by the peasants themselves, transported goods, but wagons were also becoming more common. The sources show that it was typical for medieval peasants to own a couple of horses and the many medieval wall-paintings that still adorn Danish churches provide proof indeed of the widespread use of horses. Here, as something new, we see horses pulling the plough, and wagons drawn by horses too.⁷¹

Alternative rural occupations

It was not only grain and cattle that were produced in the countryside. Rural households carried out production of many types to meet their own needs. The division of labour meant that female work appears less in the sources, but nevertheless it was crucial. Gardening, taking care of poultry and cows, baking, washing, and other such activities are typically “hidden” but important female domains of work. How-

⁶⁸ *DDR*, 2, pp. 96–99.

⁶⁹ *DDR*, 3, p. 187.

⁷⁰ Bjørn Poulsen, “Aabenraa amt og dets økonomi på reformationstiden”, *Sønderjyske Årbøger* (1992), 11–31.

⁷¹ Poulsen, “Agricultural Technology in Medieval Denmark”, pp. 115–145.

ever, there were also other rural activities carried out by both men and women which produced items for household consumption, as payment for rent, or even as a saleable commodity. While such activities almost certainly existed in the Viking Age, there is reason to believe that they increased in the Late Middle Ages, as exemplified by the hop growing discussed above.⁷²

Alternative occupations found in the Late Middle Ages appear, for instance, in the lists of duties paid by tenants in 1467–81 to a Benedictine foundation, St Peder's Abbey, in Næstved, south Sealand. These tenants lived in the village of Appenæs, on the mouth of the river Suså. There were 13 farms there and clearly fishing played a central role in the villagers' lives. Certain duties were rendered to the abbey in oats, hens, and geese, but it was fish that mattered. One peasant (or fisherman) paid his rent in fish, three peasants were obliged to operate a dragnet for the abbey, three others paid their rent in fishing nets (*togher*). Another three villagers paid their rent in homespun cloth (*vadmel*), and one gave part of his rent in hops. In 1468 we see that two of the men were paying their rents in black cloth probably produced in the Netherlands. This village was exceptional, of course, in the resources available to it, but, as we see in the rent lists, other villages associated with the abbey also paid their duties in herring, honey, the homespun *vadmel*, linen, and, in one case, cartwheels.⁷³ It is clear that, to some degree at least, occupations other than agriculture could add to the basic income of rural dwellers.

From the Viking Age onwards, women of the household spun and wove wool. Their labours were helped by technological improvements from around 1100, when vertical warp-weighted looms were replaced by more effective horizontal looms, while wool carding was introduced in the Late Middle Ages.⁷⁴ Generally weaving remained subsidiary to agrarian production but there is no doubt that in some cases quite substantial production took place. Homespun cloth, *vadmel*, was paid as rent to the king by tenant farmers as early as c. 1200, while the accounts kept by a bailiff in Langeland record in 1510, for instance,

⁷² Keld Møller Hansen and Henrik Høyer, "Næs—en vikingetidsbebyggelse med hørproduktion", *KUML. Årbog for Jysk Arkæologisk Selskab* (2000), pp. 59–89; Bjarne Stoklund, "Bønder og binæringer", *Bol og By. Landbohistorisk Tidsskrift* (1998: 2), 8–47.

⁷³ *Skovklosterregnskaberne 1467–1481*, ed. Merete Dahlerup (Copenhagen, 1993); Bjarne Stoklund, *Bondefiskere og strandsiddere. Studier over de store sæsonfiskerier 1350–1600* (Odense, 2000), p. 97.

⁷⁴ Gitte Behr, *Tekstilredskaber i det middelalderlige Danmark* (Århus, 2000).

that he received 403 *alen* of *vadmel* from households on the island.⁷⁵ Some sale of these products undoubtedly took place from the High Middle Ages onwards but it is likely that it was the Late Middle Ages that experienced a really increased market production. The professionalization of rural weaving is not documented but from the sixteenth century both male and female weavers were found in the countryside, women like Dorte Vævekone ('female weaver'), who lived in a cottage on the west coast of Jutland in 1562 and had apparently taken the name of her profession.⁷⁶

Beer was also brewed by women and to a certain degree the marketing of beer not consumed by the household was also in female hands. A customs roll dated 1316 shows, on the other hand, that large-scale inn keeping was a male affair.⁷⁷ Frequently mills operated as centres for a flourishing trade in beer, as indicated in the Bishop of Roskilde's Survey (1370), which shows that rents paid by a number of mills were rendered in beer, including foreign beer. Four mills each rendered a barrel of German beer, and in one case it was specified that this must be the Lübeck Travebeer. How we should interpret the two pairs of boots paid by two mills in the survey is unclear, but, of course, shoemakers might also have worked in them.⁷⁸ A number of rural pottery kilns dating from the thirteenth century have been found and these show that specialist potters were working locally and making use of the newly-introduced potter's wheel. We do not know whether these potters were male or female.⁷⁹ Both sexes could engage in twine-binding and the plaiting of baskets and the products of such work could be sold. In the 1530s peasants in the Schleswig parish of Hjordkær sold homemade fishing nets and eel traps made of brushwood to the royal castle at nearby Aabenraa.⁸⁰

Various non-agrarian occupations came to occupy an organic place in late medieval production, when the growing number of larger peasant farms had surplus labour at certain times of the year. Cottars, who became more and more numerous in the countryside from around

⁷⁵ *KVJ*, p. 34; Vilhelm Lütken, *Bidrag til Langelands Historie* (Rudkøbing, 1909), p. 76.

⁷⁶ Poulsen, "Middelalder", pp. 159–192.

⁷⁷ *DD* 2, 7, nr. 407.

⁷⁸ *DMR*, 3. Ser., 1.

⁷⁹ *En arkæologisk kulturhistorie*, ed. Else Roesdahl (Copenhagen, 1999), pp. 218–221.

⁸⁰ Poulsen, "Aabenraa amt og dets økonomi", p. 26.

1500, were also hungry for such work. In the winter, when there was little agricultural labour available, for instance, it was possible to cut reeds out on the moor for thatching or to collect them from the banks of small ponds. Reeds were the object of large-scale barter and sale, as every roof needed to be thatched. As early as 1231 *King Valdemar's Survey* shows reeds as payment in kind rendered to the king.⁸¹ A good example of the local bartering of reeds comes from the west coast marshes, where reeds were scarce and had to be bought from vendors inland. The customs accounts of the toll-house of Schwabstedt, situated between the Schleswig marsh and inland regions shows the huge traffic that resulted. In a single year, 1504, 12,000 bundles of reeds passed through on their way to the marshes to be sold.⁸²

The building materials needed for rural houses were otherwise mostly wood and clay. Churches and larger buildings were built of stone and from the twelfth and thirteenth centuries peasants were probably employed in quarrying. *King Valdemar's Survey* notes that limestone (*lim*) was brought in from the small island of Saltholm near Copenhagen, and in east Sealand many churches built in the twelfth and thirteenth centuries testify to the quarrying of limestone at nearby Stevns Klint.⁸³ Until the seventeenth century there are no written sources to document the fact that this kind of work was carried out by peasants but there is little doubt that this was the case in the High Middle Ages. The first source to mention quarrying at Stevns Klint dates from 1532: it is a royal command issued to a local bailiff to cut stones for onward shipment to Copenhagen.⁸⁴ A similar industry was found in east Jutland. Tile ovens, which had existed from the 1150s, were specialized items and were usually the expensive possessions of lay or ecclesiastical landlords, while the manufacturing of mortar was also normally reserved for specialists. Nevertheless, in west Schleswig, for example, peasants were active in procuring the raw material needed for burning mortar, in this case common mussels from the sea. The use of this *skellekalk* is documented in the thirteenth century and in 1538 we see that the

⁸¹ *KVJ*, p. 19.

⁸² Landesarchiv Schleswig-Holstein, Abt. 162. Schwabstedt Amtsrechnungen 1504.

⁸³ *KVJ*, p. 31.

⁸⁴ Sven P. Jensen, "Stevns Klint som arbejdsplads i ældre tid", in *Stevns Klint*, ed. Henning Poulsen (Store Heddinge, 1979), pp. 35–61.

royal officer, the *lensmand*, of Ribe was buying large quantities of these mussels from local peasants living on the west coast.⁸⁵

A vital precondition for the technological progress of medieval agriculture was an increased supply of iron for tools. The iron share of the mouldboard plough alone weighed between four and five kilos.⁸⁶ Although Denmark had relatively little iron, some modest production took place. Since the Iron Age the extraction of bog iron had been practised. To a certain degree this production supplied the home market and a constant production of bog iron in peasant kilns can be documented until the late sixteenth century. A land survey of the Jutland *len* of Lundenæs carried out in 1498 makes it clear that the peasants were paying quite large quantities of raw iron to the king's local officers.⁸⁷ A more sophisticated process for extracting iron from ore took place in northern Scania and the northern provinces of Halland and Blekinge from at least the twelfth century, although it was only the technological innovations in Swedish iron production in the thirteenth century that made it possible to lower the price of iron and produce it in large quantities.⁸⁸

In woods and moorland regions it was possible to carry out the production of charcoal, although this was very demanding in terms of resources. Charcoal could be sold locally to smiths or marketed in towns. Charcoal was often used to pay tenant rents in kind during the late medieval period, but, as noted in our chapter entitled "Woods and Moors", there is reason to believe that over-use of this resource damaged the environment and promoted the spread of moorland.⁸⁹

The Middle Ages saw an important niche production centred on salt. Peasants living along the Danish coastline burned salt from seaweed. As early as 1177 and 1197 there are references to locations in

⁸⁵ Ethelberg et al., *Det Sønderjyske*, p. 483.

⁸⁶ Grith Lerche, *Ploughing implements and tillage practices in Denmark from the Viking period to about 1800 experimentally substantiated* (Herning, 1994).

⁸⁷ *Harsyssels Diplomatarium*, ed. O. Nielsen (Copenhagen, 1893), p. 92.

⁸⁸ *Medeltida danskt järn. Främställning av och handel med järn i Skåneland och Småland under medeltiden*, ed. Sven-Olof Olsson (Halmstad, 1995); *Från Absalon till Järnmölle och Galtabäck*, ed. Sven-Olof Olsson (Halmstad, 1999); Carelli, *En kapitalistisk anda*, p. 80; Johan Söderberg, *Sveriges ekonomiska och sociala historia: Medeltiden* (Malmö, 1996), pp. 83–97.

⁸⁹ See the chapter on "Woods and Moors".

the wooded province of Halland where local peasants “baked salt” and *King Valdemar’s Survey* notes in 1231 that duties were paid in salt by the peasants in this province.⁹⁰ Sources from the fifteenth century indicate a considerable production of salt from seaweed along the coast of east Jutland, while a survey of the revenues received by the king in 1540 shows that he received 749 barrels of salt from peasants in Jutland.⁹¹ There is evidence that salt was produced in the sixteenth century from a crust that formed on the beaches along the west coast of Jutland during dry weather. Far more crucial, however, was the salt production that took place further south, along the west coast of Schleswig. Here, in north Friesland the local peasants dug salt peat from the marshes and burned the turfs to ashes. Women then took over and burned the ashes to salt in special huts. In 1231 we read that the king exercised a special prerogative over the Friesian salt huts and that salt from this manufacture was rendered to him as a duty. Originally this kind of salt production took place along the entire Friesian coast and the marketing of the commodity was apparently extensive. Part of the salt was sold within the Duchy of Schleswig but some was shipped to Bremen or went via Ribe to buyers in Sweden. From the Late Middle Ages production fell into decay and became primarily of local importance.⁹² Within the realm of Denmark large-scale salt production took place principally on the island of Læsø in Kattegat. From the twelfth and thirteenth centuries salt production was carried out here in a venture that demanded considerable capital and was often carried out cooperatively by local peasants, noblemen, and ecclesiastics: from the High Middle Ages the Canons of Viborg Cathedral owned the island and collected their duties in salt. Production was carried out in special huts using iron pans in which the island’s ground water was steamed to extract its 20 per cent salt content.⁹³

⁹⁰ *DD*, 1.3, no. 66, 223. *KVJ*, p. 34. “*In Tholæ cum incolis de Othensele in sale et ordeo et wadmal*”.

⁹¹ Jens Vellev, *Saltproduktion på Læsø, i Danmark og i Europa* (Viborg, 1993), p. 7.

⁹² Bjørn Poulsen, “Wirtschaftliche und rechtliche Aspekte des nordfriesischen Salzes im Spätmittelalter und in der frühen Neuzeit”, in *Die Salz in der Rechts- und Handelsgeschichte*, eds. Jean-Claude Hocquet and Rudolf Palme (Schwaz, 1991), pp. 279–292.

⁹³ Jens Vellev, *Saltproduktion*, pp. 18–81.

Hunting and Fishing

As in the rest of Europe, hunting in Denmark became increasingly the domain of a wealthy noble class from about 1100.⁹⁴ Hunting gained new rituals, and these are particularly clear in the case of deer hunting and falconry. By participating in these activities the court and nobility could create powerful images of themselves and from a very early date this advantage seems to have been well understood by the kings of Denmark. The oldest surviving royal seal of Denmark, dated 1085, shows the king riding in a wood and carrying a falcon on his wrist, while just outside Lund, in Scania, the existence of an ancient royal deer park, Dalby Hage, has been discovered.⁹⁵ Such deer parks seem to have multiplied in the years around 1300, and the king was forced to promise not to fence any area simply for the sake of hunting except those which had been deer parks (*paark*) from the early thirteenth century.⁹⁶ The so-called 'island list' in *King Valdemar's Survey* states quite clearly the potential game available to the king on all the smaller Danish islands: bears, deer, wild boar, hares, and rabbits. That the kings took advantage of these opportunities to hunt is revealed by a sad incident that occurred on the peninsula of Røsnæs in 1231, when Valdemar II's son was fatally injured during a hunt in the woods there.

In the Late Middle Ages the decreasing population made it possible to enlarge the royal forests that were already enclosed. Thus after 1430 the deserted village of Popholt in the Duchy of Schleswig, which was situated on the road between the towns of Flensburg and Schleswig, was added to the royal hunting reserve.⁹⁷ In the 1480s a royal officer in the *len* of Aabenraa turned over a piece of land in the north of his territory from agriculture to hunting, and deer and hare were taken there with the use of nets.⁹⁸ At the same time, privileges granted to royalty and the nobility increased their hunting rights. A number of decrees issued in the second part of the fifteenth century stressed that

⁹⁴ *Jagd und höfische Kultur im Mittelalter*, ed. Werner Rösener (Göttingen, 1997).

⁹⁵ Anders Andrén, "Paradise Lost. Looking for Deer Parks in Medieval Denmark and Sweden", in *Visions of the Past. Trends and Traditions in Swedish Medieval Archaeology*, eds. Hans Andersson, Peter Carelli and Lars Ersgård (Lund, 1997), pp. 469–490.

⁹⁶ *DDR*, 1, p. 217.

⁹⁷ Ethelberg et al., *Det Sønderjyske*, p. 539.

⁹⁸ *Rep.*, 2nd ser., 5949, 5952.

the common man was forbidden to hunt deer and other wild animals or to keep hunting dogs.⁹⁹ The woods were closed to peasants for hunting, and the occasional hare caught in their own fields added little to their modest incomes.

However, while hunting rights were being withdrawn from the peasants, their opportunities to catch fish were improving significantly. As noted in our chapter on "Marine Resources", most people had easy access to the sea, and fishing and the consumption of fish increased dramatically. This was primarily a result of the extensive quantities of preserved fish needed in the wake of demographic growth and urbanization, although the fasts imposed by the Church in the Middle Ages also played a part. The relationship between fasting and fish consumption should not be stressed too much, however: a substantial consumption of fish continued into post-Reformation Denmark until c. 1600 and then dwindled quite rapidly.

Many kinds of people were involved in fishing. Besides the rural population we also see noblemen, townspeople, and foreigners, mostly Germans, actively involved in the pursuit. Saltwater fishing took priority, with freshwater fishing being of less importance, although it is also true that from the late thirteenth century onwards there are many sources testifying to the existence of fishponds on manors.

Herring fishing was concentrated in the Sound and in the Baltic Sea and became the most important aspect of the industry. From the twelfth century onwards, large fisheries grew up along the coast of Scania and, no later than the 1170s, these were concentrated on the southern tip of Scania, where the king's protected settlements, Skanør and Falsterbo, were established. From here the catching and selling of fish spread to other places on the Sound and on the Baltic, such as Dragør, Malmø, Simrishamn, Trelleborg, Ystad, and Landskrona. In a cooperative exercise involving local fishermen, their German counterparts, and merchants, herring was caught, salted, and exported to large parts of Europe, first and foremost, however, to northern Germany.¹⁰⁰ It appears that around 1400 as much as 300,000 barrels of herring

⁹⁹ *DDR*, 2, pp. 137–39; *DDR*, 3, pp. 35, 39, 44, 184; *FFR*, pp. 150, 184, 282, 327, 327.

¹⁰⁰ Jahnke, *Das Silber des Meeres*.

came from the Sound fisheries: this was followed by a lull but in the 1520s herring catches from the Sound peaked again.¹⁰¹

In the Limfjord, north Jutland, there existed a herring fishery of relatively large dimensions from the fourteenth century, although, in combination with other Danish fisheries, it apparently contributed at best a maximum of 100,000 barrels of herring to Danish export.¹⁰² Nevertheless, from the fourteenth century onwards, Heligoland must be counted as one of the larger international herring fisheries. During the autumn fishing season this island became a base for fishermen from the whole of the North Sea area. A number of records show that in the years 1501–22, some 200–300 boats a year carrying 1,500–2,400 crew members visited the island.¹⁰³ From around 1520–1530 a decline in international herring fishing began to be felt, not only on the island of Heligoland, but also in Scania, while the centre of the west coast fishing industry in Jutland shifted from Heligoland to areas north of present-day Esbjerg. New fishing villages arose in places such as List, Rømø, Fanø, Hjerting, Langli, Vesterside, Høge, Tipper, Nyminde, and so on, right up the Skaw. These fishing villages were partly inhabited by resident local fishermen, whose most important catch was cod. The financing of the fisheries here was quite sophisticated, as boats might be part-owned by wealthy peasants living inland, or by noblemen or town-dwellers. The market for these fish included the whole of Denmark as well as Hamburg.¹⁰⁴ At the same time permanent fishing villages grew up along the north coast of Sealand, with Gilleleje as the largest.¹⁰⁵ These villages supplied the growing capital of Copenhagen with fresh fish.

Fishing was a vital element in the medieval economy of Denmark and it engaged large numbers of the population. During the fishing season most men in the coastal regions were doubtless thus employed and there are many examples indicating that fishing interests clashed

¹⁰¹ Poul Holm, "Catches and Manpower in the Danish Fisheries, c. 1200–1995", in *The North Atlantic Fisheries, 1100–1976*, eds. Poul Holm, David Starkey and Jón Thór (Esbjerg, 1996), pp. 177–206.

¹⁰² Holm, "Catches and Manpower", pp. 177–206.

¹⁰³ Bjørn Poulsen, "The Herring Fisheries off Heligoland, c. 1330–1550", in *North Atlantic Fisheries. Markets and Modernisation*, eds. Poul Holm and John Starkey (Esbjerg, 1998), pp. 7–37.

¹⁰⁴ H. K. Kristensen, *Gamle sydvestjyske fiskerlejer. Et bidrag til vestkystfiskeriets historie* (Varde, 1965); Stoklund, *Bondefiskere og strandsiddere*, pp. 126–161.

¹⁰⁵ Frandsen and Jarrum, "Sæsonfiskelejer", pp. 105–139; Stoklund, *Bondefiskere og strandsiddere*, pp. 119–125.

with the harvests.¹⁰⁶ Clearly the cash generated immediately by fishing could attract many more people than hard agricultural work, where household consumption predominated and where production for the market was a secondary consideration. Nonetheless, fishing as a niche production in combination with agriculture clearly secured the rural population of Denmark a solid footing in their fight for survival.

¹⁰⁶ Stoklund, *Bondefiskere og strandsiddere*, p. 197.

URBAN INDUSTRIES

TOWNS AND MARKETS

There were approximately 100 towns in medieval Denmark and they represent newly created channels of exchange, new work processes, and new manifestations of the division of labour in society. However, it is not possible to define the oldest towns solely as economic entities geared towards market production. Trades and crafts were not necessarily the principal activities carried out. It has been proposed instead that a definition covering all these towns would have to stress that they were densely populated areas which functioned as centres of a hinterland and were also demarcated fiscally.¹ The latter criterion is significant, because from the earliest sources onwards we read that urban dwellers paid special taxes. This definition has the advantage that it includes towns that were founded over a lengthy period, i.e. from the eleventh century until the seventeenth century. In a Danish context, moreover, the frequently used juridical definitions of towns as legally distinct units are only appropriate from the thirteenth century onwards.

Medieval towns were joined in networks that linked the whole country and in turn were connected to similar foreign networks. The building up of these links took place in a process which had its roots in the Late Iron Age and which achieved optimal success in the twelfth and thirteenth centuries. This is not to say that the Late Middle Ages represent a period of decline for urban communities. By and large, towns, once established, continued to flourish, or at least to exist, and the number of towns that actually disappeared is minimal. A survey of the growth of new towns in the period 1000–1550 is given in Table 4 below. NB Some towns shown here as being founded in 1200–1350 might well date from the late twelfth century.

¹ Andrén, *Den urbana scenen*, p. 13.

Table 4 Danish towns founded 1000–1550 and distributed according to date

Date of foundation	1000–1200	1200–1350	1350–1400	1400–1550
Jutland	9	17	0	12
Funen	1	9	0	1
Sealand (plus isles)	6	18	0	5
Scania	4	8	0	4
Halland	0	6	0	5
Blekinge	0	2	0	2
Bornholm	0	3	0	2
<i>Total</i>	20	63	0	31

Source: Andrén, *Den urbana scenen*, 1985, pp. 26–28, supplemented with Tielen and Kappel for the period c. 1500–1550.

Central places, towns, and small ports before the year 1100

From an early time it is possible to locate places in Denmark where—in interplay—cult, power, and the exchange of goods created varying degrees of centrality. We may call such localities central places.² Some kind of princely power base can be shown to have existed at Gudme in southern Funen from at least the third century A.D. and there is evidence that contact existed with parts of the Roman Empire in the period 200–550 A.D. Contacts with the Frankish realm continued until the eighth century.³ Similarly, we see a large farm or manor at Tissø in northern Sealand which was clearly connected with the highest levels of society from c. 600–1050 A.D. With distinct parts of this complex of buildings devoted to specific trading activities and crafts, it functioned as a centre for a large catchment area. Archaeological finds of weights, silver fragments, and silver bars indicate that exchange on a considerable scale took place here.⁴ It seems that a centre of princely power

² *Centrala platser. Centrala frågor: samhällsstrukturen under järnålderen: en vänbok till Berta Sjernquist*, eds. Lars Larsson and Birgitta Hårdh (Stockholm, 1998).

³ Henrik Thrane, *Guld, guder og godtfolk—et magtcentrum fra jernalderen ved Gudme og Lundeberg* (Odense, 1993); P. O. Thomsen, “Lundeberg—an Early Port of Trade in South-East Funen”, in *The Archaeology of Gudme and Lundeberg. Papers presented at a Conference at Svendborg, October 1991*, eds. Poul Otto Nielsen, Klavs Randsborg and Henrik Thrane (Copenhagen, 1994), pp. 23–29.

⁴ Lars Jørgensen, “En storgård fra Tissø, Sjælland—en foreløbig præsentation”, in *Centrala platser. Centrala frågor: samhällsstrukturen under järnålderen: en vänbok till Berta Sjernquist*, eds. Lars Larsson and Birgitta Hårdh (*Acta Archaeologica Lundensia*, 28) (Stockholm



Ill. 7. The cathedral of Ribe in the south-western part of Jutland

has similarly been found in Scania, in the locality of Uppåkra, near Lund: its roots go back to the first century after Christ and its flowering continued well into the tenth century.⁵ Rich and varied material has also been found at this site. In cases like these, the step towards the development of 'real' towns is quite a short one and the difference between these and other west European towns from the same period should not be overstressed.

The first two centres in Denmark that can justifiably be termed towns, however, are Ribe and Hedeby. Ribe appears to have been a seasonal trading place at the time of its founding on the northern bank of Ribe Å in 705 A.D. The town was divided into plots of land which housed the workplaces of a large number of craftsmen, and the settlement seems to have played an important role in the economic activities of

1998), pp. 233–248; Lars Jørgensen, "Manor and market at Lake Tissø in the sixth to eleventh centuries: the Danish productive sites", in *Markets in early medieval Europe: trading and 'Productive Sites' c. 650–850*, eds. Tim Pestell and Catharina Ulmschneider (Oxford, 2003), pp. 175–207.

⁵ Claes Wahlöö, *Metropolis. ärkebiskoparnas och kungarnas Lund* (Lund, 2001), p. 17.

various countries bordering the North Sea, most notably Friesland. Like Ribe, Hedeby (German: Haithabu) seems to have been populated by traders engaged in long-distance business transactions. These two towns near the southern borders of Denmark can be viewed as active trading centres mediating contacts between two cultural areas. The oldest part of Hedeby, or perhaps its forerunner, dates from the eighth century and is situated south of the semicircular wall built in the tenth century.⁶ Ribe and Hedeby seem relatively isolated phenomena in the period before 900, although as early as the 770s there was a settlement at Århus, in Jutland. This town appears as a full-blown community protected by a wall in 934.⁷

The chronology of urban growth in subsequent years can doubtless be refined by archaeological finds but it is possible to argue that a strengthened royal power around 1000 was decisive in the appearance of new settlements which grew into towns. Lund in Scania seems to have started with a royal hall and a large church around 990. Similarly, it has been argued that Roskilde, in Sealand, can trace its roots back to c. 980. However, historical and archaeological evidence is lacking and it has also been pointed out that indications of urbanization in both Lund and Roskilde are weak until well into the eleventh century.⁸ In the Jutland town of Viborg a large farm dating from the ninth or tenth centuries has been found but the first genuinely urban settlement there appears to date from c. 1015–20 or later.⁹ It is reasonable to assume that a royal presence in this town, an association with an ancient pagan cult, and the fact that the provincial parliament (*thing*) of Jutland was summoned to Viborg, would have been sufficient to promote growth. The town that grew up there was able to profit from central place functions with their roots back in the Iron Age. In the early twelfth century, the English monk Ælnoth described Viborg thus:

⁶ See chapter on “Money”.

⁷ *Vikingernes Aros*, ed. Anette Damm (Højbjerg, 2005), p. 16.

⁸ *Roskilde bys historie—tiden indtil 1536*, eds. Frank A. Birkebæk, Ernst Verwohlt and Mette Høj (Roskilde, 1992), pp. 39–71; Niels Lund, *Harald Blåtands død* (Roskilde, 1998). Jens Ulriksen, “Vindeboder—Roskildes tidlige havnekvarter”, in *Civitas Roscald—fra byens begyndelse*, eds. Tom Christensen, Michael Andersen (Roskilde, 2000), pp. 145–198; Hybel, *Danmark i Europa*, pp. 82–83. Around 1070 Adam of Bremen describes Roskilde as the largest town in Sealand and the seat of the king: “*Civitas eius maxima Roscald, sedes regia Danorum*”. *AB*, p. 233.

⁹ Mette Iversen, Hans Krøngaard Kristensen, Jesper Hjeremind, Ole Fenger, Per Ingeman, Bjørn Poulsen, Paul G. Ørberg and Marianne Bro-Jørgensen, *Viborgs historie, I. Oldtid—1726* (Viborg, 1998), pp. 17–20, 27–28.



Ill. 8. The town seal of Viborg from the thirteenth century

Often a large number of people from Jutland came to the *thing* here to negotiate common cases and to discuss the justice of the laws, their unchanging validity, and to give them firmness. And what is confirmed by this popular legislative assembly cannot be overturned anywhere in Jutland without punishment.¹⁰

In the same way the presence of a cultic site and a regional *thing* on the island of Funen furthered the growth of Odense in the last decades of the tenth century.¹¹ In both towns continuity can be seen in the fact that older cultic activities were transformed into Christian ones, as cathedrals were built and the functions of a centralized legal *thing* were perpetuated. This situation did not pertain in Sealand, however,

¹⁰ VSD, p. 111.

¹¹ Henrik Thrane, Tore Nyberg, Finn Grandt-Nielsen and Mikael Venge, *Odense bys historie, 1. Fra boplads til bispeby. Odense til 1559* (Odense, 1982), pp. 114–134.

where the provincial *thing* remained at Ringsted, while Roskilde became the centre of the diocese of Sealand. No doubt the bishops' palaces built at Ribe, Schleswig, Viborg, Odense, Roskilde, and Lund, were of considerable importance in the early development of these locations but in general it is possible to view tenth- and eleventh-century towns as primarily strongholds for the kings and their most powerful subjects in cooperation with the newly established church. The location of mints at Ringsted, Slagelse, and the unidentified Ørbæk, in the first half of the eleventh century seems to fit this picture. The fact that the establishment of a diocese based at Børglum in the northernmost part of Jutland did not lead to urbanization shows that there was no inevitable connection between the seat of a bishop and the founding of a town.

It is likely that the presence of a central power was crucial to early urban growth but the consequences of exchange and trade in this period should not be underestimated. From the eleventh century onwards Roskilde was involved in trade with both the Danish hinterland and Slavonic areas to the south. At times the very existence of Ribe and Hedeby depended on long-distance trade, and the town of Schleswig, which succeeded Hedeby during the eleventh century, became a principal north European trading place. In Schleswig, where a harbour and large quays were built from 1087 onwards, people from Friesland, the Rhine area, Saxony, and Westphalia met Gotlanders, Swedes, Norwegians, Slavs, and Russians.¹² Merchants from this town certainly travelled far afield: around 1120 we find a Schleswig merchant at the market held in St Gilles-du-Gard, west of Arles in Provence, selling Russian furs.¹³ The town of Ålborg, which evolved into a market place on the Limfjord sometime in the tenth century and which developed a clearly urban character from the eleventh century, was situated at the convergence of several overland trade routes. Primarily, however, the town enjoyed a first-class location on the sea route connecting the Baltic areas with western Europe.¹⁴ Trading was probably more impor-

¹² Volker Vogel, *Schleswig im Mittelalter. Archäologie einer Stadt* (Neumünster, 1989), p. 16.

¹³ Volker Vogel, "Archäologische Belege für Fernkontakte der Stadt Schleswig im 11.–13. Jahrhundert", in *Haithabu und die frühe Stadtentwicklung im nördlichen Europa*, eds. Klaus Brandt, Michael Müller-Wille and Christian Radtke (Neumünster, 2002), pp. 367–378.

¹⁴ Erik Johansen, Bodil Møller Knudsen, Jan Kock, *Aalborg Historie, 1, Fra Aalborgs fødsel til Grevens Fjæde 1534* (Aalborg, 1992), pp. 108–115; Stig Bergmann Møller, "Møntdatering af Aalborg gråbrødre-kloster", *Nordisk Numismatisk Unions Medlemsblad* (2003: 1–2), 14–19.

tant for the development of eleventh-century towns than was once thought. Archaeological finds from Horsens, a coastal town in east Jutland, seem to indicate a more intense period of settlement in the eleventh century, while the Sealand town of Næstved also has its roots in a tenth-century trading centre.¹⁵

Exchange and trade must certainly be taken into account in any discussion of these early towns, but Ålborg, Horsens, and Næstved should not be given a preferential position at the expense of the many small non-urban and seasonal ports or settlements uncovered by archaeologists in recent years. These settlements along the Danish coasts have revealed small dwellings, workshops, and finds of silver coins and weights. They date from the sixth to the eleventh centuries and must have been the ports from which local people, both high-ranking and more humble, carried out their trading.¹⁶ Some of these sites were associated with specialized production: at Næs, for instance, situated at the lower end of the fjord at Knudshoved Odde, the large-scale production of flax took place, while at Löddeköpinge, on the west coast of Scania, textile production was practised on a considerable scale in the tenth and eleventh centuries.¹⁷ The existence of such ports indicates that the urbanization achieved during the Middle Ages should not be seen as an innovation in terms of the exchange of goods. The abandonment of these ports around the year 1100 must rather be seen as reflecting the concentration of resources at a number of selected places which were then given the potential to develop into towns.

Nevertheless, the total number of towns in existence in the eleventh century was very small, as was their size. The latter can be assessed from the hoards that have been found: see Table 5 (below) for an estimate of the relative size of towns in the first part of the eleventh century based on the coinages produced by their mints.

¹⁵ Ole Schiørring, "En middelalderby forandrer sig—hovedresultater fra ti års udgravninger i Horsens", *Årbog for Jysk Arkæologisk Selskab*, KUML 2000, pp. 113–149.

¹⁶ *Atlas over Fyns kyst*, ed. Ole Crumlin-Pedersen, Erland Porsmose and Henrik Thrane (Odense, 1996); Jens Ulriksen, *Anløbspladser. Besejling og bebyggelse i Danmark mellem 200 og 1100 e. Kr. En studie af søfartens pladser på baggrund af undersøgelser i Roskilde Fjord* (Esbjerg, 1998). On the proto-urban case of Sebbersund, see Ebbe Nyborg, "Kirke og sogn i højmiddelalderens by", in *Middelalderbyen*, ed. Søren Bitsch Christensen (Århus, 2004), p. 120.

¹⁷ Keld Møller Hansen and Henrik Høyer, "Næs—en vikingetidsbebyggelse med hörproduktion", *KUML. Årbog for Jysk Arkæologisk Selskab*, 2000, pp. 59–89; Fredrik Svanberg and Bengt Söderberg, *Porten til Skåne. Löddeköpinge under järnålder och medeltid* (Malmö, 2000).

Table 5 The ranking of Danish mints by output (percentages; estimates based on the Danish hoards)

1. Lund	55
2. Roskilde	12
3. Viborg	9
4. Hedeby	6
5. Ørbæk	5
6. Slagelse	4
7. Ribe	3
8. Ålborg	2
9. Århus	2
10. Odense	0.4
11. Ringsted	0.2
12. Toftum	0.1

Source: Metcalf, D. M., *Viking-Age Numismatics*, 5, Denmark in the time of Cnut and Harthacnut, *Numismatic Chronicle* 159 (1999), p. 409.

The list indicates that the presence of a provincial *thing*, as at Ringsted, was not enough to generate large coinages. It is clear that the presence of the king and his nobles, combined with the exchange of goods, acted as the real determinants in these cases. As can be seen from Table 5, the town of Lund was by far the most productive, and should, according to this parameter, be regarded as the largest Danish town. This position is supported by archaeological finds uncovered there. From 990–1050 a royal seat was located at Lund, as well as a church with a substantial graveyard that could have served as a burial ground for large parts of Scania. From the 1020s the town seems to have been divided into plots on which a number of large farms were sited and in addition there were about 10 churches. A rune stone in the town which probably dates from the first part of the eleventh century presumably refers to the building of a church by the owner of one of these large farms: “Toke had the church built and...”.¹⁸ The large farms gave the town a rural character and it has been pointed out that this quality is underlined by the fact that until the thirteenth century some of its inhabitants were termed tenants (*landboer, coloni*), while others were called *bondones*, that is freeholders.¹⁹ As in 1085, we hear of duties paid by

¹⁸ Mats Roslund, *Gäster i huset. Kulturell överföring mellan slaver och skandinaver 900 till 1300* (Lund, 2001), p. 138.

¹⁹ Carelli, *En kapitalistisk anda*, pp. 99–209; Steenstrup, *Studier*, pp. 22, 147; Andrén, *Den urbana scenen*, p. 85. *DD*, 1. 3, no. 191.

the inhabitants of Lund and several other Scanian towns, the unit of taxation being significantly the plot (*toft*). According to twelfth-century sources the name of this duty, paid to the king, was *midsommergæld* and we can only speculate as to its age. Submission to a town lord in early Danish towns was also marked by other duties, some of which resemble those rendered by rural tenants. It was not until the mid-twelfth century that the duty owed by the inhabitants of Schleswig to the king—a coat of marten fur on his entry into the town—was abolished. Even then, certain craftsmen in the towns were long obliged to render some of their products to the king, while the levy known as “*arvekøb*”, which allowed town dwellers to buy their inheritances and free themselves from claims the town lord might make upon them, continued until the Late Middle Ages.²⁰

Urbanization 1100–1350

From the late twelfth century until well into the thirteenth century what must be termed a revolution was taking place in Danish urbanization. A much larger proportion of the population came to live in towns and there was also growth in the size of individual urban developments. Lund, for instance, grew from around 65–80 plots of land in the eleventh century to an estimated 600–700 plots by the mid-twelfth century. The original plots in the town were subdivided into many smaller ones, creating space for a population that can be estimated hypothetically at 5,000–7,000. At the same time, considerable specialization and an increasing division of labour can also be traced in Lund.²¹ This development can be seen in other Danish towns, the number of which multiplied from the late twelfth to the mid-thirteenth centuries.

Towns originating in the period before 1200 are generally characterized by their numerous churches.²² This feature assists in the ranking of Danish towns founded in the period 1000–1200 in terms of their size and importance. The towns can be ordered into four categories. Lund, the seat of the archbishop, was by far the largest with 22 churches, followed by Roskilde and Viborg with 13–14 churches each; and Ribe

²⁰ *DGK*, 1, p. 9; Stig Iuul, “Arvekøb”, in *KLNM*, 1, col. 257; Jahnke, *Das Silber des Meeres*, p. 201.

²¹ Carelli, *En kapitalistisk anda*; Roslund, *Gäster i huset*.

²² Nyborg, “Kirke og sogn”, in *Middelalderbyen*, pp. 113–190.

and Schleswig with 7–8 churches each. The remaining 14 towns all had about 2–4 churches.²³ It has been pointed out that around the year 1200 the number of churches located in towns (103) constituted about four per cent of the total number of churches in Denmark at that time. If this mirrors the actual population of towns it indicates how small a proportion of the populace lived in them before the great wave of urbanization took place.²⁴ In comparison it has been estimated that in 1086 some 10 per cent of Englishmen lived in towns.²⁵

In the early phase, i.e. before 1100–1200, towns were not situated along the coast. In line with their pronounced administrative and cultic functions they were sited inland. This situation changed after c. 1200, when large numbers of towns were built near the sea.²⁶ As seen in Table 4, the growth in the numbers of Danish towns was quite pronounced in the period 1200–1350. On the island of Sealand it is possible to state that very few towns were established after c. 1240, while in general the growth of new towns seems to have stopped by about 1270. In the period 1350–1550 new towns were only founded in the peripheral areas of the realm, while the smallest towns in Sealand and Funen disappeared altogether. In central parts of Denmark the maximum growth of urbanization was thus seen in the thirteenth century, although in other parts of the country there was still room for a late medieval expansion.²⁷ In the High Middle Ages a close network of towns was established, so that almost all country dwellers had a town within a radius of 10–15 km of where they lived. Only in the west of Jutland were some rural districts not covered by this network. This dramatic growth in urbanization did not alter the fact that the episcopal towns stood at the top of a hierarchy. From a list of a taxes levied from towns in Sealand around 1240, duties that were the urban equivalent of the plough tax, *plovskat*, paid in rural areas, we can see that Roskilde was still undisputedly the largest town on the island. From here 90 marks were paid in tax, more than twice as much as the closest competitors: Næstved (40 marks), Kalundborg (33 marks), and Copenhagen (28

²³ Andrén, *Den urbana scenen*, p. 52.

²⁴ Andrén, *Den urbana scenen*, p. 72.

²⁵ Christopher Dyer, "How urbanised was medieval England?", in *Peasants and townsmen in medieval Europe*, eds. J. M. Duvosquel and E. Thoen (Ghent, 1995), pp. 169–83.

²⁶ Jan Bill, *Skib og havn i middelalderen—en transportarkæologisk studie*. Unpublished thesis for the master degree, University of Copenhagen (1993).

²⁷ Andrén, *Den urbana scenen*, p. 87.

marks).²⁸ A similar pattern is reflected in the number of religious houses recorded in these locations in 1200–1350.²⁹

However, even if these relative sizes remained constant, there was a growth in both the number of towns founded and in their size, while the creation of a country-wide urban network must be seen as an expression of new functions developing. One of these has already been noted, i.e. the concentration in towns of a flow of goods that had hitherto circulated via many small rural ports and trading places. We must assume, however, that it was primarily a growth in the commercial sector and the creation of independent crafts that turned Denmark into an urbanized country. The men who undertook these new functions were protected by the town lord, in Denmark usually the king. Indeed many of the new towns were built on royal land. Slangerup, near Roskilde, grew up in the twelfth century around a large royal farm run by a *villicus*.³⁰ And in the eastern region of Halland, urbanized very late, we can see that royal *mansiones* became the basis of the towns of Laholm and Halmstad. The royal farm at Laholm, the predecessor of the eponymous town, is recorded in *King Valdemar's Survey* (1231) in connection with levies from tenants, as well as revenues from taxes, from the mill and from fishing, as well from the market-place.³¹

The levy or tax by means of which the town-dwellers purchased the king's protection was still largely based on land (*midsommergæld*, *arnegæld*). From *King Valdemar's Survey* we can see that towns normally paid this levy to the king along with a commutation of their military duties (*leding*). For instance, Lund, the largest town in the country, paid 60 marks in *midsommergæld* and 40 marks in military commutation. Sources from thirteenth-century towns also mention work duties owed to the town lord, as well as other levies, such as customs duty and the so-called "*tyveskud*", paid as a compensation to the king for the expenses he incurred in feeding thieves housed in the local lock-up until they could be brought before a court. From about 1240, substantial regular payments, a parallel to the rural plough taxes, were also levied.³²

²⁸ *KVJ*, p. 83.

²⁹ Andréén, *Den urbana scenen*, p. 62.

³⁰ Henrik Græbe, "Fra gård til købstad", *Hikuin* 12 (1986), 7–16.

³¹ *KVJ*, p. 36. "*Ipsa mansio de Laghæholm, de foro, de colonis, de tributo, de molendino, de piscatura soluit xv mr. argentis*".

³² See chapter on "Rural levies and royal finances".

In the High Middle Ages the representative of the town lord was a bailiff who was given special jurisdiction. Only during the twelfth and thirteenth centuries did this power weaken, so that communal town government could evolve in cooperation with the lord's local agent. In the twelfth and early thirteenth centuries, self-government in the town of Schleswig and elsewhere was probably conducted by a guild-based group of four people, the *seniores* or *senatores*, but later in the thirteenth century a genuine council (*råd*), based on the German model, came into existence. In 1252 we hear of aldermen (*consules*) in Ribe, and from the mid-fourteenth century mayors (*borgmestre*, *proconsules*) held office in Danish towns, normally two to four at a time. In the thirteenth century the council was still selected by the town lord but from c. 1360 at the latest it became common for the council to co-opt its own members.³³

The increasing autonomy of towns was guaranteed by privileges and town laws granted by the kings and these should be seen as preconditions for the emergence of *uillani* (townsmen) as a separate group in the sources. From around 1200 we hear of certain civic privileges being granted, while the town law of Schleswig, the oldest known of its kind, contains sections that go back to mid-twelfth century: in its present state it dates from around 1200. The "*birkeret*", a law used in Scanian towns, is old, however, and may have originated in Lund around 1200. All other surviving town laws are from the thirteenth century or later. One source of inspiration was provided by Lübeck, from whom the law of the Danish town of Tønder was copied in 1243. The surviving original from Tønder is actually written by the Lübeck town scribe and makes it clear that the Franciscans lent their assistance in this connection. The law of Tønder inspired Ribe's law (1269), as well as other town laws in Jutland. More independent creations include the laws of Copenhagen (1254) and Roskilde (1268).³⁴

These laws defined towns as distinct areas, legally set apart from rural areas. However, of equal importance for their development were the core functions built up in them. The role of the clergy grew stronger in cathedral towns as the economic standing of bishops grew and chapters of canons were set up. From the 1240s convents of mendicant

³³ Orla Vestergaard, "Forkøb, landkøb og forprang i middelalderlig dansk handelslovgivning", in *Middelalderstudier. Tilegnede Aksel E. Christensen på tresårsdagen 11. september 1966*, ed. Tage E. Christiansen (Copenhagen, 1966), p. 189.

³⁴ *DGK*, vol. 1–5.

friars were founded in all the larger towns, while all the religious orders extended their charitable endeavours to include lazaret-houses, hospitals (*helligåndshuse*), and schools. Except for the friaries these new institutions were based on landed wealth and their presence in the towns meant that revenues from rural land rent were channelled into urban consumption. In all towns the representative of the royal or episcopal town lord maintained a residence, sometimes fortified, from which the levying of customs duties could be carried out. In many towns the king's own lodgings also played a role in the collection of duties. A letter dated 1180, for instance, speaks of the royal residence at Odense to which the king's peasants, his *landboer*, came to pay various levies. As the land of some of these *landboer* had been gifted to the Benedictine cathedral priory in the town, the monks had to promise that as compensation they would keep ten horse-drawn wagons on hand whenever the king stayed at Odense.³⁵ The 1160s saw castles built in Copenhagen (still called Havn at this point), Vordingborg, Tårnburg, Kalundborg, and Søborg. In the towns of Lund, Roskilde, Ribe, Viborg, and Schleswig mints were established which long functioned as centres from which new coins were exchanged for old ones (*renovatio monetarum*). *King Valdemar's Survey* (1231) shows that the most active mints in the country enjoyed large revenues from this coin exchange, namely 1200 silver marks and 8 gold marks in Lund and 900 marks in Roskilde. These amounts, the most substantial of all the royal revenues listed in the survey, show that the *renovatio monetarum* in Scania and Sealand was at times carried out principally from their two episcopal towns.

Coin circulation increased greatly from around 1200, and millions of royal pennies, *penninge*, spread throughout Denmark.³⁶ This corresponded to a change in the commercial function of towns: country folk went into town and a lively connection between urban and rural districts was established, while many Danish towns also became part of a trade network that linked them with German and, to a lesser degree, English and Dutch towns.

³⁵ *DD*, 1.3, no. 89, 90.

³⁶ See chapter on "Money".

Local markets and the great market in Scania

That the relation between town and country was of limited importance before the year 1200 is obvious from the small number of towns in existence at that time. Not until the very end of the twelfth century did the number of towns increase, so that weekly exchanges with the surrounding country could develop. From the mid-thirteenth century we have many references to peasants going to town to sell their goods. Thus the town law of Roskilde, dating from 1268, mentions beer that had been brewed in the countryside and brought into the town for sale.³⁷ A tax levied on wagons coming into town (*torveørtug*) now also became widespread.³⁸ In the law of Copenhagen (1254) we read of townsmen using stalls at the market-place to sell woollen cloth and linen in order to buy fresh hides and lambskins, while there others buy grain and flesh at the market.³⁹ In 1263 a burgess of Ribe owned a booth called a "butcher's stall" at the market.⁴⁰ In 1302 the Canons of Århus owned four booths at the market held in that town.⁴¹ What we are now witnessing are weekly markets.

In 1120 Lund had a place, or at least an activity, called a market (*forum*) and archaeological sources also show buildings and crafts connected with the market in this town dating from the early twelfth century.⁴² However, it has been argued that commercial activities here were still limited at this point and that the area primarily functioned as a public meeting place.⁴³ In 1140 King Erik Lam gave the revenues from the market, the fines inflicted on wrongdoers, and the town tax (*midsommergæld*) of Næstved to St Peder's Abbey, a Benedictine foundation.⁴⁴ A privilege dated c. 1200 or later stipulates that every craftsman attending the market at Næstved, no matter which manor he hails from, must pay market duties to the town lord, St Peder's Abbey.⁴⁵

³⁷ *DGK*, 3, p. 165 ff.

³⁸ See *DMR*, 3, Ser., 1, p. 101.

³⁹ *DD*, 2.1, no. 138.

⁴⁰ *DD*, 2.1, no. 404; cf. *DD*, 2.1, no. 278.

⁴¹ *DD*, 2.5, no. 216.

⁴² *Necrologium Lundense. Lunds domkyrkas nekrologium*, ed. Lauritz Weibull (Lund, 1923), p. 7; Andrén, *Den urbana scenen*, p. 81.

⁴³ Peter Carelli, "Varubytet i medeltidens Lund. Uttryck för handel eller konsumtion?", *Meta. Medeltidsarkeologisk tidskrift* (1998: 3), pp. 3–27.

⁴⁴ *DD*, 1.2, no. 78. Aage Andersen, *Middelalderbyen Næstved* (Viby, 1983), p. 50.

⁴⁵ *DGK*, 3, p. 243, no. 1, cf. no. 2.

Denmark obviously had a regular local market trade in the twelfth century, but everything indicates that the market-place as a separately defined area was not common before the thirteenth century, when we also hear of *torvekøb*, special local levies on the buying and selling of goods in a public place.⁴⁶ Booths were set up around the market-place in Lund in c. 1200. Archaeological research has established that in 1205 or shortly afterwards, a market-place was laid out in the town of Schleswig.⁴⁷ Apparently this market did not receive its full privileges until 1261, when it was granted the right to hold a market twice a week, on Thursdays and Saturdays. The reasons given for this rather limited concession were the economic decline of the town and the fact that “there are markets at the surrounding *thing* places and towns”.⁴⁸ At Ribe a “horse fair (*horsetorv*) existed before 1224.”⁴⁹ In the mid-thirteenth century Århus was granted a market-place in front of the cathedral, and the first public well was also dug there in 1257–1261.⁵⁰ During the thirteenth century markets became an important consideration in the planning of towns. Among the best-known examples are Køge, which was founded in 1288 on a deserted beach, and the ancient town of Horsens, which was radically transformed around 1300. Both places now featured large centrally-located markets accessed by paved main streets. A lively trade was conducted at the new market in Horsens, as demonstrated by finds of hundreds of coins, as well as fragments of copper, shoemaker’s waste, cloth seals, and other artefacts dating from the fourteenth century onwards.⁵¹

Trade with country-dwellers was a crucial feature of thirteenth-century town life and conversely affected the buying and selling carried out at rural markets. As in the rest of Europe, the number of country markets in Denmark during this period was probably considerable but we only know of some of those that were held yearly. In 1265, we hear

⁴⁶ Andren, *Den urbana scenen*, p. 88.

⁴⁷ Vogel, *Schleswig im Mittelalter*, p. 52.

⁴⁸ *DD*, 2.1, no. 330.

⁴⁹ *DD*, 1.6, no. 30.

⁵⁰ *Middelalder-arkæologisk Nyhedsbrev*, 51 (2003), p. 17; Store Torv, (FHM 4470).

⁵¹ Ole Schiørring, “En middelalderby forandrer sig Horsens. Hovedresultater fra ti års udgravninger i Horsens”, *Kuml* 2000, 113–149; Hans Mikkelsen and Jørgen Smidt-Jensen, “En smuk lille by”, *Skalk* (1995: 5), 5–10; Keld Grønder-Hansen, *Kongemagtens krise—det danske møntvæsen 1241–ca. 1340. Den pengebaserede økonomi og møntcirkulation i Danmark i perioden 1241–ca. 1340* (Copenhagen, 2000), p. 169.

that the annual horse fair was located outside the gates of the monastery at Æbelholt, Sealand.⁵² In 1278 an annual market was held at Hvidanger, where folk from the towns of north Germany traded with Danes: this market was probably located along the coast in the bay of Vordingborg.⁵³ Preconditions for weekly and yearly markets were goods that were either imported or manufactured by a growing number of local craftsmen, combined with an increasing monetization of society. However, direct contacts with other countries became also increasingly common, primarily as a result of the general urbanization of Europe and specifically the founding of German towns on the southern shores of the Baltic. Denmark developed particularly close connections with Lübeck, Wismar, Rostock, Greifswald, and Danzig (Gdansk).

As early as the eleventh and twelfth centuries, German merchants were carrying out trading activities in Denmark but the urban and commercial developments of the thirteenth century provided the opportunity to further these Danish contacts. This intensification of exchange came about largely because bulk cargoes were becoming common. Whereas in earlier periods exports from Denmark were routed via Ribe and Schleswig and were generally associated with luxury items, the picture changed in the thirteenth century. Around 1200–1250 Schleswig lost its former position as one of the largest Baltic ports to be engaged in long-distance trade.⁵⁴ There are good reasons to believe that many other Danish towns intensified their trading connections with the Baltic during the Danish dominance of this area prior to 1227. The defeat of the Danish royal forces at Bornhöved in that year probably marks the date from which active trade in the Baltic was taken over by Germans, although it is true that Danish ships continued to ply the sea routes.⁵⁵ Germans certainly sailed to those Danish ports that were located in towns but the most important meeting places for Danish and German traders were now the markets of Scania.

⁵² *DD*, 2.1, no. 461.

⁵³ *DD*, 2.2, no. 332.

⁵⁴ Carsten Jahnke, “... und er verwandelte die blühende Handelsstadt in ein unbedeutendes Dorf”. Die Rolle Schleswigs im internationalen Handel des 13. Jahrhunderts”, in *Von Menschen, Ländern, Meeren. Festschrift für Thomas Riis zum 65. Geburtstag*, eds. Gerhard Fouquet, Mareike Hansen, Carsten Jahnke and Jan Schluermann (Tönning, 2006), pp. 251–268.

⁵⁵ Bill et al., *Dansk søfarts*, pp. 138–154.

These markets had their origin in the catching and selling of herring. Around 1170 “the markets”, which took place in mid-September, are first mentioned in written sources and by about 1200 the one held at Skanør had attained international importance.⁵⁶ At that time the chronicler Arnold of Lübeck wrote of the Danes: “Because of the yearly fishing they have in Scania they have enough wealth and on that occasion the peoples of the surrounding countries gather there as traders to buy herrings from the locals”. He also notes that in 1201 a large part of the population of Lübeck visited the fisheries in Scania with “ships and tools”.⁵⁷

At the same time, markets are recorded by Saxo Grammaticus and mentioned in the Icelandic/Norwegian sagas.⁵⁸ The Law of Skanør, issued by King Valdemar II (1202–1241), controlled fishing and trade in that port and also set the customs dues paid by Norwegians exporting herring. By the 1220s the people of Lübeck had obtained privileges there, but the fully developed structure of the market is not recorded in the sources until the mid-thirteenth century. At that time there were royal castles at both Skanør and its neighbour Falsterbo, and around 1300 we find small urban communities in these places too. Merchants and traders from foreign towns were allocated their own plots, their “*fed*” (Danish) or “*Vitten*” (German), where they were granted jurisdiction and permitted to salt their herring and conduct their trade. At Skanør we hear of the following foreign towns with “*fed*”: Lübeck, Rostock, Wismar, Stralsund, Hamburg (?), Bremen, Kiel, Ribnitz, Wolgast, Wollin, Cammin, Greifenberg, Treptow, Rügenwalde, Stolpe, Grevensmühlen, Kampen, Zutphen, Harderwijk, Staveren, Hindelopen, Amsterdam, Enkhuizen, Wieringen, Den Briel, and Zwolle. Skanør and Falsterbo became meeting places for people from the west, the so-called “*Ummelandsfahrer*”, i.e. merchants from the Netherlands and England who took the route around the northern tip of Jutland and those travelling from the German towns around the Baltic as well as from the western parts of Denmark.⁵⁹ Alongside the foreign traders were Danish merchants in large numbers. From the 1250s Danish towns were granted special privileges here, while in 1256 we hear that the

⁵⁶ Niels Skyum-Nielsen, *Kvinde og Slave* (Copenhagen, 1971), p. 246.

⁵⁷ “Arnoldi Chronica Slavorum”, *Scriptores Rerum Germanicarum*, ed. Georg Heinrich Pertz (Hannover, 1868), pp. 77, 234; Jahnke, *Das Silber des Meeres*, p. 64.

⁵⁸ Jahnke, *Das Silber des Meeres*, pp. 64 ff.

⁵⁹ *DD*, 2.1, no. 50.

Danish Guild of St Cnut gathered at Skanør in September while the market was being held.⁶⁰ From these two large market-places, Skanør and Fæsterbo, trading activities gradually spread to other places along the Sound and the Baltic, centres such as Dragør, Malmö, Simrishamn, Trelleborg, Ystad, Landskrona, and a number of unauthorized locations, the so-called “wild ports”.

At these markets, cloth from the west was sold, along with Rhenish wine, beer, wax, millstones from Scania, furs, hemp, salt, meat, and hides, plus countless other commodities. These exchanges peaked in 1368–85. The Lübeck customs accounts for 1399 record that in this year 1218 ships sailed to the Scania markets out of the 1760 vessels that set sail from Lübeck for Danish destinations. Similarly, the value of imports and exports passing through the Scania markets in the years 1399 and 1400 represented about half the total trade that Lübeck carried with Denmark.⁶¹ There is good reason to view the Scania markets as the most important contributors to Danish trade over a long period, from the mid-thirteenth century to about 1400. This was soon to change, however: in the final decades of the fourteenth century the Hanseatic merchants forced out their English, Fleming, and Dutch competitors from the Scania markets, before themselves becoming the victims of Danish attacks on their privileges in the fifteenth and sixteenth centuries.

From about 1200–1400 direct trade was also carried out in Danish towns, of course, as foreign merchants haggled with their local counterparts, while there were also numerous transactions negotiated at the free yearly markets held in both town and countryside. In many ways, though, it is possible to see a dual structure comprising both the weekly markets held in towns and the large international autumn markets held in Scania. We could say that a paradoxical situation arose, whereby the Scania markets, which in themselves had no pronouncedly urban character, were played a crucial part in the urban development of Denmark.

⁶⁰ *DD*, 2.1, no. 28.

⁶¹ Curt Weibull, “Lübecks sjöfart och handel på de nordiska rikena 1368 och 1398–1400. Studier i Lübecks pundtullböcker”, *Scandia* 32 (1966), 86.

Crisis and growth in the late medieval town

The period 1350 to 1550 saw important changes in the pattern on urban Denmark. Most importantly, the market functions provided in Scania were largely phased out from around 1400. Admittedly, the fisheries were still of some importance and the Skanør and Falsterbo markets continued to be used by Germans and Danes. But the function of the Scania markets as a place of exchange between the North Sea and the Baltic had gone, and in its place there were direct contacts between Danish towns and foreign traders. Towns bordering the Sound profited from this development and it is likely that the free yearly or half-yearly markets set up in local towns became more numerous.

That problems arose in some Danish towns in the years 1350–1400 is clear from Table 4, which shows that for the first time for centuries no new towns were created. In the latter part of the fourteenth century there are even examples of towns disappearing. Herrested on the island of Funen lost its status as a town at some point between 1353 and 1415: a small agrarian town had gone.⁶² The same can be said of Skibby, in the north of Sealand, which lost its urban functions during the fourteenth century, probably as the result of widespread rural desertions in its hinterland of Hornsherred.⁶³ One reason that urbanization ground to a halt during the years 1350–1400 was the dominance of the Scania markets, while the plague epidemics and resultant decrease in the population obviously also had a part to play.

The sources indicate that Denmark was hit by the Black Death in 1349–50.⁶⁴ Even if some towns managed to offset their demographic losses by immigration, they undoubtedly found it difficult to ensure that all their houses and plots of land were occupied. The written sources show that in the period 1377–1440 even well-consolidated towns like Copenhagen, Malmö, Næstved, Landskrona, Lund, and Køge experienced difficulty in filling these plots of land.⁶⁵ In one of

⁶² DGG, 3, 1955, pp. 601–2, nr. 7; Andrén, *Den urbana scenen*, p. 157.

⁶³ Svend Gissel, “Handels- og kommunikationsforhold”, in *Hornsherredundersøgelsen*, ed. Svend Gissel (Copenhagen, 1977), pp. 266–284.

⁶⁴ Ulsig, “Pest og befolkningsnedgang”, 23.

⁶⁵ Bjørn Poulsen, “Tilbagegang og vækst i senmiddelalderens danske by”, in *Middelalderbyen (Danske bystudier, 1)*, ed. Søren Bitsch Christensen (Aarhus, 2004), pp. 191–248.

the few fifteenth-century land surveys to survive, the town of Ribe is recorded as having experienced large-scale desertions.⁶⁶ Using similar sources combined with archaeological material, we can reconstruct a scenario whereby Ribe expanded and created suburbs during the high medieval period only to see these suburbs converted back to stables and allotments some time before 1460.⁶⁷ If we look at the ecclesiastical institutions which based their incomes on rents from urban land, it is also possible to trace the consequences of diminishing revenues. Around 1400, *Helligåndhuset*, formerly a prosperous hospital in Lund, was in a state of such deep crisis that its inmates had to beg on the streets.⁶⁸ By 1408 it was clear that St Gertrude's Chapel, Køge, could not survive on its revenues and the clergy were allowed by the bishop to beg for alms at the herring market held in Dragør.⁶⁹ Around 1426, the parish church at Præstø, Sealand, was falling into decay as a result of poverty.⁷⁰ In 1432 the parish church at Vordingborg was threatened with ruin if the money to repair it could not be found.⁷¹

On the other hand signs of urban growth dominate the picture from c. 1400 onwards. If we turn to Table 4 we can see that a number of new towns were founded in Denmark during the period 1400–1550.⁷² Admittedly there were not as many as there had been in the High Middle Ages and this is perhaps explained by the fact that the urban network was now virtually complete. Nevertheless, towns were established, most notably in the Sound region, in the area around the Limfjord, and in peripheral parts of the realm. We must conclude that despite decreasing population a new type of townscape was being created. A

⁶⁶ *Ribe bys jordebog. Grundlagt i 1450'erne og videreført til omkring 1600*, ed. Ingrid Nielsen (Esbjerg, 1979), pp. 37–38.

⁶⁷ Ingrid Nielsen, *Middelalderbyen Ribe* (Århus, 1985), p. 89; Per Kristian Madsen, "Die Verlagerung der Stadt Ribe im 12. Jahrhundert und der Ausbau der Stadt im 13. Jahrhundert", in *Archäologie des Mittelalters und Bauforschung im Hanseraum. Eine Festschrift für Günther P. Fehring*, ed. Manfred Gläser (Rostock, 1993), p. 98.

⁶⁸ Johannes Lindbæk and G. Stemmann, *De danske Helligåndsklostre. Fremstilling og Aktstykker* (Copenhagen, 1906), p. 7; Anders Andrén, *Lund (Medeltidsstaden, 26)* (Stockholm, 1980), p. 93.

⁶⁹ H. J. Hansen, "Sct. Gertruds Kapel i Kjøge", *Fra Arkiv og Museum* 3 (1905–1908), pp. 138–45; *Rep.*, 1. ser., 5019.

⁷⁰ *Rep.*, 2. ser., 3069s.

⁷¹ *Danmarks Kirker. Præstø Amt*, eds. Christian Axel Jensen and Victor Hermansen (Copenhagen, 1933), p. 165.

⁷² Andrén, *Den urbana scenen*, p. 32.

network of towns was being set up which accentuated the long-standing regional differences of the country.⁷³

The number of towns founded by royal charter in the first decades of the fifteenth century is impressive. As early as 1403, in the reign of Queen Margrethe, we witness a change in the status of Præstø, presumably a new foundation.⁷⁴ Thereafter come the towns founded by King Erik the Pomeranian:⁷⁵ Nysted in 1409,⁷⁶ Kerteminde, Landskrona, and Skagen in 1413,⁷⁷ Maribo in 1416, the relocation of an urban community from Tårnborgh to Korsør in 1425, and the newly founded Helsingør (Elsinore) in 1426. To these new developments we can add the reinforcement of Nyborg in 1415/16, the king's choice of Copenhagen as his principal seat in 1416/17, a royal connection with Næstved in 1426, as well as the royal patronage of Malmö. Husum, on the west coast of Schleswig, comprised at least 109 dwellings in the 1430s and can therefore be viewed as a town, although its status was not confirmed by privileges until 40 years later, in the reign of Christian I.⁷⁸

Some of the changes that took place in towns in the first three decades of the fifteenth century are perhaps not so much the result of real urban growth as royal attempts to monopolize trade, to abolish illegal harbours in the locality, to eradicate the illicit trade that was conducted outside the town gates, and to force all trade into the market-place. In some cases the town privileges of the fifteenth century were only a confirmation and regulation of existing ordinances. By 1286 Nysted already had a Franciscan convent and must be characterized as an urban settlement. By the late fourteenth century Præstø and Skagen had a clear connection with trade and fishing, while there were economic relations between the Lübeck and the "village" of Skemminge as early as 1398, several years before it achieved its status as a town with the name of Maribo.⁷⁹ Nonetheless, there was real growth in the sense of

⁷³ As early as 1241–1310 coin circulation was more extensive in Scania than elsewhere in the country. Grønder-Hansen, *Kongemagtens krise*, p. 242.

⁷⁴ *DGK*, 3, 1955, p. 221; Andrén, *Den urbana scenen*, p. 170.

⁷⁵ Ralf-Gunnar Werlich, "Gott zu Ehre und den dänischen Königen um dem Reich zum Nutzen—königliche Städtepolitik in Dänemark unter Erich von Pommern", in *Studien zur Geschichte des Ostseeraumes*, 1, ed. Thomas Riis (Odense, 1995), pp. 9–17.

⁷⁶ *DGK*, 3, pp. 403–4.

⁷⁷ Cf. Jørn Lønstrup and Ingrid Nielsen, *Skagen. Den tilsandede Kirke* (Viborg, 1995).

⁷⁸ Christian M. Sørensen, "Neue Gesichtspunkte zur Stadtentstehung Husums im 15. Jahrhundert", *Beiträge zur Husumer Stadtgeschichte* 1 (1988), 11–46.

⁷⁹ *DD*, 4.6, no. 604.

new urbanization and not just a formal change in the towns on which King Erik concentrated his privileges, and this is evident in cases like Elsinore. In 1426 this town acquired new privileges and the king clearly intended that the inhabitants should move to his castle Krogen (later Kronborg) and build a town there.⁸⁰ This new town had a distinctive street plan. Furthermore, the king ordered the burgomaster, the town council, and the castellan of Krogen to promote the resettlement of various craftsmen at Elsinore. The sources leave no doubt that the king's attempt to build a new town was an immediate success. Not only were several religious foundations completed by around 1441 but very soon a long row of brick houses was constructed on small plots of land in the town.⁸¹

In the most peripheral regions of Denmark urban growth continued throughout the whole of the fifteenth century. Mariager, where a monastery was built in 1410, existed as a town by the mid-fifteenth century.⁸² A number of small urban developments in eastern Denmark, like Elleholm, Gåsekil, Luntertun, and Lyckå, apparently all achieved town status in the mid-fifteenth century.⁸³ The same is true of the north Jutland towns of Sæby and Thisted, and probably also Ærøskøbing on the island of Ærø.⁸⁴ At Ry, a small market settlement in central Jutland, a "townsman" is mentioned for the first time in 1492.⁸⁵ A number of places did not attain full urban status in the Middle Ages but were on their way to achieving this privilege. One such location was the fishing hamlet of Nibe on the Limfjord, where a local priest built a chapel in c. 1440.⁸⁶ It was not until 1545 that this settlement was granted its rights as a town (or to be correct as a separate law district, a *birk*), but by the fifteenth century its urban character was unmistakable. The same can be said of the settlement at Bredstedt on the west coast of Schleswig, which had to wait until 1530 before it achieved privileges as a distinct

⁸⁰ *DGK*, 3, pp. 123–5.

⁸¹ Just as marked, for instance, was the growth of the small Funen town of Kerteminde. Erland Porsmose, *Kerteminde bys historie 1350–1659* (Kerteminde, 2000), pp. 19–69.

⁸² Andrén, *Den urbana scenen*, p. 165.

⁸³ Andrén, *Den urbana scenen*, pp. 153, 155, 164, 165.

⁸⁴ Andrén, *Den urbana scenen*, pp. 181, 182, 189; Paul Ørberg, *Sæby Købstads Historie*, 1 (Sæby, 1970), pp. 15 ff.

⁸⁵ Andrén, *Den urbana scenen*, p. 173.

⁸⁶ *DGLM*, 1, p. 653.

jurisdictional area (*flækkeret*).⁸⁷ On the island of Bornholm, Svaneke is mentioned as a town in 1491, but it was not until the sixteenth century that, along with Hasle, it formally attained this status.⁸⁸

The number of towns was increasing and to some extent existing towns were also getting bigger. Particularly significant was Copenhagen's elevation to the most important town in the country, a process which began with King Erik the Pomeranian's occupation of the town in 1416/17. While other towns in Sealand, such as Kalundborg and Vordingborg, lost ground with the royal house, its favouring of Copenhagen resulted in rapid growth there.

A general expansion of the layout of existing towns seems mostly to have occurred in the second half of the fifteenth century. Næstved expanded north and south-east at that time and simultaneously new quarters were built in towns like Kalundborg, Aarhus, and Odense, often outside the old walls.⁸⁹ Even in the smallest towns, like Aabenraa, in Schleswig, expansion can be traced during the last three decades of the fifteenth century.⁹⁰ In some towns we now meet new suburbs bearing humble names, like *Ramsherred*, while others have the late medieval suffix *-balle*, indicating parts of a settlement that have grown out of older ones.⁹¹ In the small agrarian-based town of Store Heddinge, the district named "Bønderballe" is thus a creation of the fifteenth century, probably originating around 1488, when it is mentioned for the first time.⁹²

⁸⁷ Bjørn Poulsen, *Land. By. Marked. To økonomiske landskaber i 1400-tallets Slesvig* (Haderslev, 1988), pp. 122, 124.

⁸⁸ Andrén, *Den urbana scenen*, pp. 157, 180.

⁸⁹ Andersen, *Middelalderbyen Næstved*, p. 56; Lars Holleufer, *Kalundborg i middelalderen. En undersøgelse af byens topografiske udvikling indtil 1547* (Horsens, 1990), p. 104; *Aktstykker vedkommende Staden og Stiflet Aarhus*, 1, ed. J. R. Hübbertz (Copenhagen, 1845), pp. 31–2, 75–76; Hans Jørgen Madsen, "Byens rum. Bispestaden 1100–1550", in *Århus. Byens historie*, 1 (Århus, 1996), pp. 128–130; Connie Jantzen, "Århus efter reformationen 1550", in *Tidsbilleder. Domkirken og byrummet gennem 800 år*, eds. Henrik Fode and Ole Østergaard (Århus, 2001), pp. 49–50; Annemette S. Christensen, *Middelalderbyen Odense* (Odense, 1988), pp. 131–32.

⁹⁰ Lennart S. Madsen, "Kirkebygningen—oprindelse og udvikling", in *Sct. Nicolai kirke i Aabenraa*, ed. Lars Henningsen (Aabenraa, 2002), p. 29.

⁹¹ Gregersen, *Det skæve Sønderjylland*, pp. 95–104.

⁹² Bjørn Poulsen, "Store Heddinge i middelalderen", *Store Heddinge før og nu*, 1 (Fakse, 1993), pp. 7–21.

Table 6 Ranking of Danish towns according to the number of soldiers conscripted in 1481

150: Malmö
120: Copenhagen
100: Næstved
80: Århus, Horsens, Ålborg, Ribe, Odense, Køge, Nakskov, Landskrona
70: Roskilde
60: Randers, Slagelse
50: Ystad, Væ
40: Viborg, Svendborg, Assens, Stege

Source: DM, 4th ser., 2, pp. 148–149.

A new town hierarchy and increasing urbanization

Against the background of late medieval urban growth, a new town hierarchy was created that can be traced in contemporary sources. This can be illustrated using a source dating from 1481, which lists the number of soldiers conscripted in various towns in that year. This conscription must have taken place after an assessment of the population had been carried out by the chancellery and the wealth of the towns calculated. The following table shows the 20 towns that contributed the greatest numbers of men.

Firstly, it is evident that the episcopal towns of Roskilde and Viborg have slid down the list, while Lund is not even shown amongst the towns most prominent in terms of conscription. A number of ports, however, especially in eastern Denmark, have gained prominence. Malmö and Copenhagen now dominate the country.

There are also clear indications that the proportion of the population living in towns was growing. The population figures for medieval Danish towns are not easy to establish, but it is possible to make an estimate in the case of Copenhagen.⁹³ Based on lists made in 1377 and another in 1510 an estimate of population size has been calculated on the basis of a theoretical household of five people. The result is shown in Table 7:

⁹³ Thomas Riis, "Hvorfor blev København Danmarks hovedstad?", in *Struktur og Funktion. Festskrift til Erling Ladewig Petersen*, ed. Carsten Due-Nielsen (Odense, 1994), pp. 73–80.

Table 7 Estimated number of inhabitants in Copenhagen in the years 1348, 1377 and 1510

Year:	1348	1377	1510
Inhabitants:	3300	2100	3300

Source: Thomas Riis, *Hvorfor blev København Danmarks hovedstad?*, 1994, pp. 73–80.

The figure for 1510 is probably too low but even if it is correct it indicates that, in a country with a dwindling population, the town maintained its population level. Town populations growing in absolute numbers seem to be the general rule in the Duchy of Schleswig. At Flensburg we know that there were 398 plots of land registered in 1436 and 422 in 1508.⁹⁴ In the west Schleswig town of Husum there were 249 taxpayers in 1438 and 476 in 1540. In the town of Schleswig the number of taxpayers increased from about 150 in the first half of the fifteenth century to 179 in 1481 and 187 in 1511.⁹⁵

It can be assumed that the degree of urbanization, that is the percentage of the total population of Denmark represented by urban dwellers, had passed 10 per cent by the year 1500. In the relatively urbanized Duchy of Schleswig we can with some safety contrast the number of property-owners in the towns with the number of farms in the countryside.

Around 1530 there were some 14,500 peasant farms in Schleswig. An estimate of the number of residential plots and/or tax payers in the towns is shown in Table 8 (below). If these figures are multiplied by five (the size of an average household) we can compute with reasonable accuracy the total urban population at this time (tab. 8).

This indicates that about 15 per cent of the people in Schleswig were living in towns. If we assume that c. 1530 cottars represent an extra ten per cent of country-dwellers in addition to those living on farms, a number that is perhaps a little high, we have 13 per cent of the total population living in towns. On the other hand some of the urban population, for instance noblemen and clergy, were not liable for tax and are therefore excluded from this estimate. The figures might not be completely accurate but nonetheless the picture of a relatively

⁹⁴ Poulsen, *Land. By. Marked*, p. 122.

⁹⁵ Erich Hoffmann, *Die Herkunft des Bürgertums in den Städten des Herzogtums Schleswig*, (Neumünster, 1953), pp. 99–101.

Table 8 Number of peasant farms (rural population) and plots/taxpayers (urban population) c. 1530

	Number of units	× 5 = estimated population
Peasant farms	14,500	72,500
Husum	624	3120
Flensburg	422	2110
Schleswig	187	935
Tønder	147	735
Haderslev	120? [*]	600?
Eckernförde	120? [*]	600?
Åbenrå	115	575
Bredstedt	100	500
(Kappel)	100? [*]	500?
Sønderborg	80	400
Schwabstedt	50	250
Ærøskøbing	50	250
Total in towns	2115	10,575

* no certain data

high, albeit unimpressive, degree of urbanization cannot be shaken. This urbanization was probably rather less in some regions of Jutland but can hardly have been so in eastern Denmark. A recent estimate suggesting that the urban population of late medieval Denmark comprised only five per cent of the total population is clearly far too low.⁹⁶ By the end of the Middle Ages, Denmark was a society made up of small towns but together they comprised a substantial body of the population, even if comparisons with more urbanized parts of Europe make the Danish percentages seem small. In England it is likely that around the year 1300 some 20 per cent of the population were living in towns.⁹⁷

Urban dominance of the countryside and the importance of foreign trade

Danish towns in the Late Middle Ages maintained their favourable positions in two ways: firstly, from the late fourteenth century they intensified their struggle for economic dominance of the surrounding

⁹⁶ Benedictow, "Demographic Conditions", p. 237.

⁹⁷ Dyer, "How urbanised was medieval England?", pp. 169–83.



Map 5. Map of the Danish medieval towns

rural areas; and secondly they fought actively for a larger part of the trade between the Baltic and the North Sea regions.

Late medieval towns depended on legislation that was formulated in close cooperation with the king. The self government of the towns had developed into a real council government and these town councils sought to promote the administration of laws that would divide town and country sharply. It is perhaps significant that the word for townsman (*bymand*) was replaced in 1400 with the term 'burgess' (*borger*), denoting a person with full rights in the town.⁹⁸ In time the vested interests of burgesses led them to assert their rights over those of country-dwellers, and late medieval Denmark was characterized by attempts to force trade into the towns and to ban trade and crafts in the countryside. At the

⁹⁸ Birgit Christensen, "Borger, subst.," in *80 ord til Christian Lisse 12. januar 1992*, (Copenhagen, 1992), pp. 17–19.

same time, Danish merchants and craftsmen in the towns were trying to monopolize their own occupations.⁹⁹

In the 1360s the king promoted a policy in Scania that favoured local towns, in that foreign merchants were not allowed to trade with each other but only with burgesses, while retail trades and crafts were also reserved for the latter. Trading was only permitted in the market-places of the towns concerned. This regulation soon spread to other parts of Denmark, while trade (*landkøb*) was prohibited completely in the hinterlands. From around 1460, this prohibition became even more specific in that the town became the only place where trade by certain people was permitted, i.e. people coming from particular districts, be these *sogne*, *herreder*, or *len*, or from villages within a given radius (one, two, or four Danish miles) from each town.¹⁰⁰ Outside these boundaries trade was banned in principle, and the crafts permitted were very limited. A special assault was launched against the many non-urban ports that seem to have multiplied in the latter part of the fourteenth century. Here peasants carried out a lively trade with German merchants while the burgesses did their best to stop them. The towns battled equally fiercely against independent ships being used by peasants. In a typical decree dated 1413, King Erik the Pomeranian banned trade around the town of Svendborg and the buying and selling of linen, woollen cloth, rope, hops, and iron in the town. He also ruled that nobody was to sail to or trade from illegal harbours in the vicinity.¹⁰¹ From around 1400, small boats manned by peasant crews sailed to German towns from the islands around the south of Funen, as well as from Lolland and Falster. From the early sixteenth century onwards vessels owned by peasants sailed from the eastern provinces of Halland and Blekinge to both Danish and German destinations. At the same time wealthy landowners and royal officers, *lensmænd*, shipped goods from their estates using their own vessels and set up direct trade contacts with German merchants.¹⁰² The burgesses clearly did not have the monopoly of trade and crafts they

⁹⁹ Vestergaard, "Forkøb, landkøb og forprang", pp. 185–218.

¹⁰⁰ Vestergaard, "Forkøb, landkøb og forprang", pp. 185–218.

¹⁰¹ *DGK*, 3, pp. 534–5.

¹⁰² Poul Enemark, "Herremandshandel i senmiddelalder og 16. århundrede", in *Riget, magten og æren. Den danske adel 1350–1660*, eds. Per Ingesman and Jens Villiam Jensen (Århus, 2001), pp. 398–425.

would have wished. Nevertheless, in cooperation with the king, towns in Denmark increased their domination of the country areas around them in the course of the fifteenth and sixteenth centuries.

Of even greater importance to those towns that could profit from it was the evolution of long-distance trade. The dwindling of the Scania markets was undoubtedly one of the principal reasons for the relative improvement in the economy of Danish towns from c. 1450–1550. German merchants established themselves and their capital in Danish towns, so that trade with north Germany was now channelled through these locations.¹⁰³ This factor benefited those east Danish towns situated along the Sound but also affected other areas, for instance, Ålborg on the Limfjord and Husum on the west coast of Schleswig. During the fifteenth and sixteenth centuries Ålborg acquired considerable power over the other towns on the Limfjord. Nevertheless, Copenhagen and Malmö grew most in this period; in the case of Copenhagen this was because the king had chosen it as his main domicile. The power of the two towns was demonstrated quite clearly during the war of 1534–36, when they were politically independent of the rest of the realm. At this point Denmark came the closest ever to having the German “*Reichsstädte*”.

More substantial taxes and duties presumably also reveal the growing wealth of the towns. From the 1480s onwards, towns were required to pay more in beer taxes, *sise*.¹⁰⁴ Extraordinary taxes were constantly added to this and reached their maximum during the reign of Christian II. In 1517 the burgomaster and town council of Ribe, for instance, paid 26 pieces of Leiden cloth (at 12 guldens a piece) as well as 1020 marks to the king, and also allowed him credit of 200 Rhenish guldens. At the same time one of the wealthiest merchants in Ribe gave the king a personal loan of 50 Rhenish guldens, while the richest burgess of all, a cattle trader, lent the king 100 Rhenish guldens. Two years later the council of Ribe lent the king a further 900 guldens.¹⁰⁵

Generally the late medieval town was marked by a sense of progress. In demographic terms it was a relative progress that increased the

¹⁰³ Christensen, “Danmarks Befolkning”, p. 51.

¹⁰⁴ Mikael Venge, *Fra åretold til toldetat. Middelalderen indtil 1660* (Viborg, 1987), pp. 175–186.

¹⁰⁵ *SS*, 2nd ser., 1.

proportion of urban dwellers compared to their rural brethren.¹⁰⁶ There is little doubt that in many respects the late medieval town survived as a result of structures put up during the period of growth witnessed in the thirteenth century and to a very great extent rested on an increasingly regulated trade with the hinterland. However, it is doubtful whether this trade with surrounding rural areas could have carried the late towns through the challenge posed by the demographic downturn that struck Denmark in the Late Middle Ages: this survival was more likely a result of changes that took place in trade with larger markets. As noted above, competition with the Hanseatic towns of northern Germany caused the markets in Scania to diminish gradually, and trade found its way to other Danish ports. This was a structural development of the greatest significance, and one that decisively and throughout the whole of the fifteenth century must have furthered the chances that certain towns would survive, especially if an alliance with the king meant that trade was prohibited in the surrounding rural areas.

There are indications that Danish towns coped better with changing circumstances than their counterparts in north Germany, Flanders, England, and Norway. The economic problems experienced by Lübeck in the late fifteenth century do not seem to have been felt in Denmark. If the Danish towns resisted commercial pressures better than most of the Hanseatic towns it might well have been due to a positive trade balance in relation to them.¹⁰⁷ More important a factor, however, was that Danish merchants began to operate outside the established Hanseatic trading network. In general, European towns in the Late Middle Ages do not seem to have been marked by crisis but rather to have been part of a transformation that hit some and benefited others. There was certainly decline in some places but growth in the towns of Upper Germany and Holland, and probably also in Hamburg and Danzig (Gdansk), which became important centres along a booming trade route through the Baltic. This traffic was crucial to Danish shipping and urban growth in the fifteenth century. Husum, on the west coast of Schleswig, was built as a result of trade with the Netherlands, and all larger Danish towns

¹⁰⁶ Anders Bøgh, "Samfundet", in *Dagligliv i Danmarks middelalder—en arkæologisk kulturhistorie*, ed. Else Roesdahl (Copenhagen, 1999), p. 49.

¹⁰⁷ Poul Enemark, "Lybæk og Danmark. Skæbnemodstandere eller handelspartnere?", in *Kongemagt og samfund i middelalderen. Festskrift til Erik Ulsig*, eds. Poul Enemark, Per Ingesman and Jens Villiam Jensen (Århus, 1988), pp. 161–187.

sought a share in this new and lucrative traffic.¹⁰⁸ The opportunity for Danish towns to secure a better economic outcome than their north German counterparts was undoubtedly linked with the sea routes which increasingly connected the North Sea and the Baltic.

¹⁰⁸ Poul Enemark, "Hollandshandel, Danmark", in *KLNM*, 6, col. 643–647; Poulsen, *Land. By. Marked*, pp. 178 ff.; Poul Enemark, "Vesteuropa, Lybæk og dansk handel i senmiddelalderen", *HT* 91 (1991), 361–401.

CRAFTS

Raw materials like grain, meat, wood, clay, metal, hides, and furs, whether home-produced or imported, had to be processed to be useful, and work with these and other material resources during the Middle Ages gradually moved into the hands of specialists. This development, along with the professionalization that accompanied it, led to an increase in the number of craftsmen and to changes within their crafts. The evolution of new skills and new crafts is confirmed by archaeological finds, such as the discovery of workshops and their output, including waste, and also by written sources. As so often happens, these different sources are not complementary but rather contrasting: they have to be forced into a kind of dialogue in order to be of value.

In the late twelfth century some God-fearing merchants in the town of Viborg accused a weaver of working on a holy day: that person turns out to have been—not a male weaver—but a female one.¹ Presumably she was working primarily for her own household. She would then stand as a representative of an early phase in the development of crafts, i.e. a phase dominated by home production. Indeed, much of this home production was left to women. In the long period covered by this survey, we see two parallel transitions: from domestic labour to market production and from female workers to male artisans. On Viking Age farms and in early urban developments, both men and women processed raw materials to a much greater extent than their counterparts did in the medieval period. While rural settlements in the Viking Age were characterized by separate workhouses (*grubehuse*), in which women were employed to carry out certain designated tasks such as weaving, these skills were more likely to be practised during the High and Late Middle Ages by specialist weavers, often male.² In the Viking Age female slaves ground corn by hand, whereas separate mills employing male workers

¹ *VSD*, p. 275.

² Hoff, *Lov og landskab*, pp. 68–69. On Viking Age weaving, see Eva Andersson, “Textilproduktion i Löddeköpinge—endast för husbehov?”, in Fredrik Svanberg and Bengt Söderberg, *Porten til Skåne. Löddeköpinge under järnålder och medeltid* (Lund, 2000), pp. 158–187.

became the norm in the medieval period.³ In the Viking Age pottery was primarily produced on farms, presumably by women, while later it became an increasingly specialized commodity which, at least from the early sixteenth century, was to some degree the monopoly of urban potters. Metal was often smelted and cast on Viking Age farms,⁴ while during the Middle Ages both rural and urban smiths were normally independent workers with their own households and workshops. As a consequence of this removal of work processes from the household, the craftsman and his occupational title came into existence. A further development took place as the individual occupations were split and processes became more and more specialized. The division of labour was evidently not horizontal, as in our days, but vertical, as each occupation was divided into more. From the smiths, for instance, came the blacksmiths, locksmiths, and spur makers.

It is possible to trace the creation of independent crafts back to changes taking place in farm work. On most Viking Age farms some craft production took place. On many farms, and especially the largest, this development arose with the help of dependents, who might well have been slaves but who had also gained a certain status as specialists. "Smiths" are known to have been employed in the service of prosperous Viking Age farmers.⁵ This point is illustrated, for instance, by a rune stone found at the village of Hørning, near Aarhus, and dating from about 1050: the inscription reads "Toke smith set up this stone in honour of Troels, son of Gudmund, who gave him gold and freedom". Here we evidently have a manumitted slave paying tribute to his deceased master. Toke Smith must have become an important man, as he was also able to put up another rune stone in the vicinity.⁶

³ Janken Myrdal, "Mjölka och mala, gräva och valla. Aspekter på trälars jordbruksarbete cirka år 1000–1300", *Trälar. Ofria i agrarsamhället från vikingatid till medeltid*, eds. Thomas Lindkvist and Janken Myrdal (Stockholm, 2003), pp. 125–132. All the millstones found at Hedeby are from hand querns, presumably used in virtually every household. In Schleswig, on the other hand, it is mostly millstones that have been found. Volkmar Schön, *Die Mhlsteine von Hailhabu und Schleswig. Ein Beitrag zur Entwicklungsgeschichte der mittelalterlichen Mhlwesens in Nordwesteuropa* (Neumünster, 1995). On early mills, see Christian Fischer, *Tidlige danske vandmøller* (Silkeborg, 2004).

⁴ See, for instance, Lene B. Frandsen, "Vikingetiden i Henne", *Mark og Montre. Årbog for Ribe Amts museer*, 2005, pp. 5–14.

⁵ *Viking og Hvidekrist. Norden og Europa 800–1200*, ed. Else Roesdahl (Uddevalla, 1992), p. 196, 251.

⁶ Niels Åge Nielsen, *Danske runeindskrifter. Et udvalg med kommentarer* (Viborg, 1983), p. 142. The somewhat earlier stone from Kolind, also near Århus, can similarly be interpreted as evidence of a dependent smith. The inscription reads: "Toste, smith of

Even as slaves, dependent craftsmen might well have attained a high social status and it is likely that at least some of them were employed on the estates of powerful men, where evidence suggests that precious materials were worked for a wealthy elite.⁷ In such large settlements, as well as in many smaller Iron Age and Viking Age ones, we find the origin of the development of craftsmanship which continued in the medieval countryside, when skilled artisans were employed in manor houses and monasteries. Nonetheless, more sophisticated skills gradually disappeared from ordinary medieval farms.

The most important environment for the independent craftsman was undoubtedly to be found in the burgeoning towns but here too the process was not simple. Early Viking Age towns and central places reveal many traces of the production of material resources.⁸ However, we know nothing about the status of those who manufactured these products. It may be that they exercised greater autonomy than their rural counterparts but on the other hand it is quite possible that they were still unfree and lacked any real control over their work.⁹

In the oldest levels excavated at Lund, i.e. those dating from 990 to 1050, there are relatively few traces of crafts and those that have been found appear to be connected with the large plots of land that were dominant feature of Lund at the time. The town comprised a number of large areas dominated by houses of considerable size. These sites are believed to have belonged to rural landowners of high social status. Only in the twelfth century were these larger plots divided into smaller ones. A closer analysis of the horn and bone material found at Lund shows that not only were eleventh-century combs made by craftsmen but also that their workshops were located in the heart of the enclosed plots of land. Originally production was relatively limited but it grew

Asved, put up this stone in memory of his brother Tue, who found his death in the east". Nielsen, *Danske runeindskrifter*, p. 168.

⁷ For instance, Gudme in South Funen, Tisso and Lejre in Sealand, and Uppåkra in Scania, where many traces of artisans have been found. See K. Andersson, *Romertida guldsmide i Norden, III, Övriga smycken, teknisk analys och verkstadsgrupper* (Uppsala, 1995).

⁸ Stig Jensen, *Ribes Vikinger* (Ribe, 1991). From the eighth to the tenth centuries, skilled workmanship was carried out in the Slavonic towns situated on the southern shores of the Baltic, in Sweden (Birka), and in a limited number of Danish towns, primarily Ribe and Hedeby but also in places like Åhus in Scania, where the remains of workshops have revealed the manufacture of glass beads and bone combs, as well as the smelting of metal.

⁹ Anna Hed Jakobsson, "Spår av en maktideologi. Städer, tomter, hantverk og djuvreornamentik", *Hikuin 29 (Nordeuropeisk dyrestil 400–1100 e. Kr.)* (2002), pp. 277–300.

during the eleventh century and by the mid-twelfth century a revolution took place that allowed a huge increase in the number of goods produced, as well as a diversification of the process. In addition to combs, the workshops turned out game pieces, ice-skates, and buttons. Craftsmen set up their homes and workshops alongside fellow specialists, choosing adjacent plots of land near the market-place or along streets bearing the designation of their trade. A similar development affected iron production in Lund in c. 1100–1150, when artefacts became more diversified and apparently directed towards a wider range of customers: in the period 1150–1250 ironworking was carried out in booths erected along the streets themselves. Similar trends can be detected in other Danish towns and perhaps reflect a development in the second half of the twelfth century whereby unfree men slowly evolved into relatively independent craftsmen.¹⁰

In the late tenth century, Danish pottery was relatively primitive and was made at home, presumably by women. However, around the year 1000 a new product, “Baltic ware”, appeared and soon became widespread throughout most of eastern Denmark. It is probable that the new technology making production of this type of ware possible was introduced by immigrants, most likely slaves, from Rügen and western Pomerania. What is certain is that these newcomers laid the foundation for a market-oriented production of ceramics, although this cannot be ascertained clearly until the twelfth century and, more significantly, the thirteenth century.¹¹

Many early craftsmen were presumably dependent on larger households but from the early eleventh century it appears that mint masters and goldsmiths constituted a special group of experts able to move relatively freely between the royal and noble circles of northern Europe.¹² Throughout the eleventh century, groups of Anglo-Saxon mint masters worked at the royal mints of Denmark, and around 1100–1110 the English monk and goldsmith Anketil of St Albans was employed in this capacity by the king.¹³ From the eleventh century

¹⁰ Carelli, *En kapitalistisk anda*, pp. 141–172.

¹¹ Mats Roslund, *Gäster i huset. Kulturell överföring mellan slaver och skandinaver 900 till 1300*, (Lund, 2001).

¹² Cf. Anton Seiler, “I guldsmedens tjänst. Spår av trälldomen i gravmaterialet från östra Mellansverige under yngre järnålder”, *Trälär. Ofria i agrarsamhället från vikingatid till medeltid*, eds. Thomas Lindkvist and Janken Myrdal (Stockholm, 2003), pp. 77–87.

¹³ *De skriftlige kilder til Danmarks middelalderlige møntvæsen. Et udvalg 1085–1500*, ed. Jørgen Steen Jensen (Copenhagen, 1989), p. 2; Skyum-Nielsen, *Kvinde og Slave*, p. 46.

onwards, large church buildings were constructed by cosmopolitan craftsmen, although it is only rarely that we know these highly skilled workers by name. However, two skilled professionals are identifiable: we know the names of the Lombard masons, Donatus and Regnerus, who masterminded the building of Lund Cathedral in the first half of the twelfth century.¹⁴

The growth of crafts around 1200

The earliest craftsmen were simply termed 'smith' (*smed*), possibly with a prefix, as in goldsmith or keelsmith (*kølsmed*), the latter a shipbuilder. In the archaeological material uncovered, however, it is possible to detect a specialization in urban crafts that emerged during the twelfth century, while written sources have left few traces of this process. The *libri memoriales* of Lund Cathedral contain a notice dated c. 1165–1200 in which a Thorkild Baker (*pistor Thorkyllus*) is mentioned, while around the year 1200 the historian Saxo tells a story set in 1133 about a shoemaker trained in Germany and working in the town of Roskilde.¹⁵ This reference suggests that German specialists in the leather trades settled in Denmark as early as the twelfth century. The significance of Saxo's story is that it was apparently quite novel to be a trained craftsman, indeed it is possible that the introduction of formal craft apprenticeships started at about this time. Nevertheless, we have no certain documentation relating to craftsmen before the year 1200. From that point onwards, however, there are ample sources. A town law from Schleswig, which must be dated to about 1200, mentions carpenters (*carpentarii*), shoemakers (*sutores*), skinnners (*pellifices*), bakers (*pistores*), and a butcher (*carnifex*), all working in separately organized groups. The shoemakers were required to pay the king three marks per annum; the skinnners could opt to pay one mark to the king annually or to wait until he visited the town and then render him a thousand skins. Bakers were carefully regulated: in order to obtain a licence to practise their craft they had to pay the bailiff one half mark, then every year on Midsummer Day render him three pounds of grain, plus an

¹⁴ Carelli, *En kapitalistisk anda*, p. 93.

¹⁵ *Libri Memoriales Capituli Lundensis*. *Lunde Domkapitels Gavebøger*, ed. C. Weeke, (1884–1889, repr. Copenhagen 1973), p. 20; Claes Wahlöö, *Metropolis Arkebisprens och kungarnas Lund* (Lund, 2001), p. 82; Saxo, 13, 11, 2. 3.

additional six *øre* in money three times a year. A baker selling mouldy or underweight bread would be fined nine marks payable to the town. It is clear that the bakers were organized into some form of cooperative, as the law states that their master (*senior*) should intervene in cases of poor-quality bread and pay the king three marks if the bakers could not prove their innocence. The butcher was required to give the king two *øre* for a licence to sell from his booth, *macellum*, a silver *øre* for buying lambs at Whitsun, and an extra two *ørtug* for the privilege of selling from his booth at Martinmas.¹⁶

Table 9 (below) sets out a chronology of occupations practised in the Danish Middle Ages as they appear in all the known sources:

Table 9 A chronology of occupations known to have been practised in medieval Denmark, as listed in written sources dating 1000–1513

1000–1099	smith
1100–1149	goldsmith, stonemason (<i>stenmester</i>)
1150–1199	baker
1200–1249	butcher, skinner, shoemaker, fisherman, carpenter, brick or tile maker (<i>teglmester</i>), female innkeeper (<i>kroholderske</i>)
1250–1299	glover, tailor, brewer, shield maker
1300–1349	crossbow maker (<i>værkmester</i>), armourer (<i>brynjemester</i>), cloth shearer (<i>overskærer</i>), belt maker (<i>bæltelager</i>), master mason (<i>murermester</i>)
1350–1399	spur maker (<i>sporesmed</i>) knifsmith (<i>knivsmed</i>), swordsmith (<i>sværdfeger</i>), armourer (<i>pladeslager</i>), coppersmith (<i>kobbersmed</i> , <i>kobberslager</i>), lantern maker (<i>lygmager</i>), founder (<i>støber</i>), cooper (<i>bødker</i> and <i>kimmer</i>), painter, thong, and belt maker (<i>remmesnider</i>), saddler (<i>sadelmager</i>), purse maker (<i>pungmager</i>), maker of leather armours (<i>pladesuder</i>), rope maker (<i>rebslager</i>), quiltmaker (<i>dynemager</i>), porter (<i>drager</i>), bathhouse-keeper (<i>badstuemand</i>), executioner (<i>bøddel</i>)
1400–1449	brazier or pot founder (<i>grydestøber</i>), tinsmith (<i>kandestøber</i>), armourer (<i>harniskmager</i> , cf. earlier <i>pladeslager</i>), locksmith (<i>klejnsmed</i>), needlemaker (<i>nålemager</i>), tanner (<i>garver</i>), hatter (<i>hattemager</i>), weaver, coffin maker (<i>kistemager</i>), sawyer, glazier (<i>glarmester</i>), shipbuilder, barber

¹⁶ DKG, 1, pp. 9–10.

Table 9 (*cont.*)

1450–1499	kettlesmith (<i>kedelsmed</i>) furrier (<i>buntmager</i>), joiner or cabinet maker (<i>snedker</i>), chair maker (<i>stolemager</i>), beaker maker (<i>bægermager</i>), clog maker (<i>træskomager</i>), carriage maker (<i>vognmager</i>), paver (<i>brolægger</i>), beadworker (<i>perlestikker</i>), parchment maker (<i>pergamentsmager</i>), printer (<i>bogtrykker</i>), organ maker (<i>orgelmager</i>)
1500–1520	sculptor or carver (<i>billedskærer</i>), slipper maker (<i>tøffelmager</i> , <i>patinenmager</i>), candlemaker (<i>lysestøber</i> , <i>lysesnoer</i>), potter, thatcher (<i>tækker</i>), female bleacher (<i>blegekone</i>), seamstress (<i>sømmerske</i>), bucket maker (<i>spandemager</i>), bookbinder, organist

The second half of the twelfth century and the whole of the thirteenth century were marked by the breakdown of domestic self-sufficiency, especially in towns. Urban dwellers no longer baked their own bread: this became the job of a professional baker, and perhaps the baking oven as such represented new technology. Another old occupation to become separated from normal household functions at an early stage was that of the butcher. He continued to slaughter beasts at home but sold his products from a booth in the market-place. Booths are mentioned in several thirteenth-century sources.¹⁷ The processing of skins and hides also underwent professionalization at an early stage, with skinners selling their end-product to shoemakers. There are many references to these two occupations from the early thirteenth century, while one source shows that, from the second half of the thirteenth century or earlier, even small towns had a recognized craft apprenticeship for shoemakers.¹⁸ In a very different sphere the building of churches, castles, and manors in brick and stone resulted in the creation of two entrepreneurial occupations: the master mason (*stenmester*) and the master tiler (*teglmester*). In the early twelfth century there was a foreign stonemason (*lapicida*) engaged in the building of Lund Cathedral.¹⁹ One of the leading stonemasons or stonecutters of the Middle Ages has omitted his occupational name but instead carved his own image on a stone

¹⁷ In 1263 a townsman sold a booth called a *kødmangerskammel*, i.e., butcher's stall, which he had inherited from his father. *DD*, 2. 1, no. 404.

¹⁸ *VSD*, p. 440, § 22.

¹⁹ M. Rydbeck, *Skånes stenmästare före 1200* (Lund, 1936), p. 98.

incorporated into the church at Gøl, northern Jutland: he sits holding his hammer, with the simple inscription "Master (*mester*) Goti".

The period 1250–1300 saw new occupational names, indicating steps towards the professional manufacture of clothing, namely 'glover' and 'tailor'. Glover (*handskemager*), a name we meet in 1261, is the first occupation recorded with the ending *-mager* (from the German *-maker*, cf. English *-maker*), marking a growing influence from north German towns.²⁰ There might well have been more occupational names in use in the thirteenth century than we know of: at any rate there are archaeological traces of specialists in crafts that have no mention in the written sources. The excavation of a thirteenth-century workshop in Ribe, where small wooden beakers (*stavbægre*) were produced, may be proof of highly specialized products from that trade.²¹ Nonetheless, specialization does not seem to have progressed very far. Doubtless the smiths fulfilled many functions. A street called Strandstien in the town of Ålborg has revealed traces of smiths' workshops dating from the eleventh to the thirteenth centuries. A simple workshop measuring 3.25 × 2.5 metres, which can be dated to about 1250, turns out to have housed a jack-of-all-trades, who could produce padlocks, repair copper kettles, and make needles, tweezers, decorative plates, buckles, and spindle weights. In this case, the crafts of ironsmith, founder, copersmith, and needlemaker were united in one and the same man.²² The only occupational name found on thirteenth-century gravestones is 'smith', although some of these examples indicate quite clearly the range of skills possessed by the person interred there. An illustration of this can be seen at Vinderslev Church, central Jutland, where a stone was erected in the first half of the thirteenth century in memory of a smith: on one side he is depicted complete with tools, anvil, and a ploughshare; on the other side we see an axe, a bell, and what looks like a piece of masonry. Presumably this craftsman could found bells, build houses, and perhaps also carry out joinery tasks using an axe.²³ Another gravestone, dating from the second half of the thirteenth century, records a smith (*faber*) and suggests that he was a specialized

²⁰ *DD*, 2.1, no. 332.

²¹ Mogens Bencard, "Om Ribes Rådhus, Skibsbroen, en udgravning og et formodet stavbægerværksted", *Hikuin* 3 (1977), 59–80.

²² Erik Johansen, Bodil Møller Knudsen, Jan Kock, *Aalborgs historie, 1. Fra Aalborgs fødsel til Grevens Fejde 1534* (Ålborg, 1992), pp. 122, 247, 339.

²³ Hans Krongaard and Jens Vellev, "Teknik", in *Dagligliv i Danmarks middelalder. En arkæologisk kulturhistorie*, ed. Else Roedahl (Copenhagen, 1999), p. 227.



Ill. 9. Relief from the church of Gjol, Jutland, showing Adam and Eve and a stone mason at work using his pick hammer, c. 1200

blacksmith. His stone shows an anvil, a pair of tongs, and a horseshoe.²⁴ A fine coffin lid, appearing to date from the early fourteenth century and located at Pjedsted Church, near Vejle in central Jutland, again tells the story of a multi-skilled workman. The runic inscription states quite simply: “Gunne Smith (*smed*) did me”. Presumably Gunne had carpentry skills combined with experience in ironworking and could complete the assignment single-handed.²⁵

Bronze founding had been carried out in Denmark since prehistoric times and continued into the Middle Ages. We know that around 1250–1300 a smith (*faber*), living in the Funen town of Svendborg and named Master Jakob Rød, made twelve censers for local churches.²⁶ However, the written sources do not show the occupational name ‘founder’ until the fourteenth century and there are two reasons for this. Firstly, as indicated by the above-noted inscription at Vinderslev, founding was carried out by people who were simply termed ‘smiths’. This was a practice that probably continued well into the Late Middle Ages.²⁷ Secondly, in the thirteenth century the more complicated

²⁴ Poul Grinder-Hansen, “Kunsten”, in *Dagligliv i Danmarks middelalder. En arkæologisk kulturhistorie*, ed. Else Roedahl (Copenhagen, 1999), p. 264. Similarly, a thirteenth-century seal found on the island of Bornholm and bearing the inscription “Sigillum Rung Faber” shows an anvil and thong. Jette Arneborg Pedersen, “Et bornholmsk smedesignet”, *Hikuin* 6 (1980), 111–114.

²⁵ Else Roesdahl, “Møbler og indretning”, in *Bolig og familie i Danmarks middelalder*, ed. Else Roesdahl (Århus, 2003), p. 229.

²⁶ Carelli, *En kapitalistisk anda*, pp. 180–181, 439.

²⁷ Jes Petersen, the bell-founder from Slagelse and later Flensburg, who founded bells in 1470–90 for many churches in Sealand, Funen, Scania, and Jutland, also termed himself Jes Smed (smith) and set the mark of a smith, i.e., hammer and tongs,

founding processes were undertaken near monasteries and were usually carried out by the monks themselves or by lay brothers.²⁸ Judging by the bells that survive, those founded by specialist independent craftsmen appear to date from the fourteenth century and later. From the early fourteenth century onwards we see that a number of founders have placed their seals, depicting a bell, on the ones they have cast, thus signifying their occupational identity.²⁹ However, the surnames 'bell-caster' and 'bell-founder' cannot be documented before 1526. Throughout the fifteenth century, many bell-founders were referred to as pot-founders (*grydestøbere*), reflecting their principal occupation, while, as noted above, the name "smith" could still mean a man who made bells among many other things.

In the fourteenth and fifteenth centuries there is a dramatic increase in the number of names that indicate crafts, especially after 1350, cf. table 9. In the first half of the fourteenth century, however, we have new occupation names, such as 'master mason' or 'bricklayer' (*murer-mester*): this was partly a result of the ongoing professionalization of the building trades, and partly a result of the ever more exclusive use of the term 'smith' (*smed*) for people solely employed in processing iron. Specialization within the production of cloth and clothing, already traceable in the thirteenth century with the appearance of tailors, continued with the advent of cloth shearers, *overskærere* (German: *Wandschneider*), vendors who purchased cloth in bulk, milled it until it became soft, and then cut the whole cloth into shorter lengths.

A source dated 1352 tells us that every year Hanseatic merchants sailed to the Scania markets at Falsterbo and Skanør in the company of a various craftsmen, including shoemakers, tailors, coopers (*tondebindere*), skimmers, "and others".³⁰ There existed a close connection between the

on his bells. F. Uldall, *Danmarks middelalderlige Kirkeklokker* (Copenhagen, 1906, 2nd ed. Højbjerg, 1982), pp. 195–200.

²⁸ This is also indicated by early examples that survive and by the discovery of a foundry at Odense where bells and three-legged pots were produced around the year 1300. One of the bells made at this workshop was presumably the one at St Cnut's Church, Odense, signed 'Adam' and still in use. Adam's workshop was situated so close to the main buildings of the Blackfriars' convent in Odense that it must have been part of this complex. Jens Vellev, "Nikolaus gjorde mig i Herrens navn. Amen", *Acta Campanologica* 3 (1985), 241–247; Niels-Knud Liebgott, *Danmark i middelalderen* (Copenhagen, 1998), p. 52; Krongaard and Vellev, "Teknik", pp. 231–232.

²⁹ Uldall, *Danmarks middelalderlige Kirkeklokker*, pp. 56, 57, 58, 63.

³⁰ *DD*, 3.3, no. 527.

north German Hanseatic ports and Denmark, and most new words for craft occupations were taken directly from Low German and translated crudely into Danish, often by using the German suffixes: *-mager*, *-slager* and *-snider*.³¹ In many cases, Germans were directly responsible for the transfer of technology represented by the new crafts, as they were the first to establish the craft in question in Denmark. This strong German influence, combined with urban growth, explains the large number of new crafts evolving in the years 1350–1400. During this period tremendous differentiation between smiths is seen, so that, as well as the common blacksmith (*smed*), we now find knifemakers (*knivsmede*), swordsmiths (*sværdfegere*), metal workers (at this time generally armourers), spurriers or spur makers (*sporesmede*), lantern makers (*lygtemagere*), and founders. At the same time, the skimmers had their occupation diversified into those who cut out straps and belts (*remmesnider*), saddlers (*sadelmager*), makers of purses (*pungmager*), and makers of leather armour (*pladesuder*).³²

The first half of the fifteenth century saw the division of founders into brass working pot founders (*grydestøbere*) and jug founders or pewterers (*kandestøbere*), while the needlemaker appeared as an independent occupation emerging from the ranks of smiths. In the towns of west Schleswig we see the first male weavers, who otherwise do not appear in the realm before the late fourteenth century.³³ In Malmö, Scania, male and female weavers were working side by side around 1520.³⁴

The second half of the fifteenth century and the whole of the sixteenth century were marked by continued vertical specialization and by the emergence of completely new skills. Many craftsmen still came from Germany and even within well-established trades this trend continued. The widow of a Danish saddler thus wrote in a letter dated 1487 that she planned to travel to Germany to find a good journeyman for her workshop.³⁵ In this period and for the first time we encounter clog makers (*træskomagere*) and slipper makers (*tøffelmagere*), who supplemented

³¹ Winge, "Hanseater og plattysk påvirkning", pp. 326–335.

³² That we do not meet the professional bathhouse-keeper (*badstuemand*, *badstuemester*) before this period is probably a matter of chance, as heated bathhouses were fairly common in thirteenth-century Denmark. Esvard Gotfredsen, "Bastu", *KLNM*, 1, sp. 389–390.

³³ Poulsen, *Land. Bj. Marked*, p. 126.

³⁴ *Lyder van Fredens Kännarsräkenskaper för Malmö 1517–1520*, ed. Leif Ljungberg (Malmö, 1960), pp. 121, 128.

³⁵ Grethe Jacobsen, "'5 alen klæde til en kåbe': en enkes bønsskrift fra 1487", *Siden Saxo*, 7, 2, 1990, pp. 21–25.

the footwear produced by traditional shoemakers. This transfer of knowledge from northern Germany is demonstrated by the fact that one Luder Klipkenmaker, who was working in Flensburg in 1498 and was the first known clog maker in Denmark, apparently came direct from the German town of Wismar.³⁶

A growing number of new occupations came into existence during the Middle Ages. The speed with which this happened is indicated by part of a by-law (1449) governing the skinners of Malmø: it stipulates that the skinners were allowed to undertake a particularly fine form of tanning (*semsgarvning*) until this was developed into a specific craft (*embede*). Presumably the occupations of belt maker (*remmesnidere*) and purse maker (*pungemagere*) were treated in the same way.³⁷ Urban craftsmen were expected to specialize and the period after 1350 was significant in this respect. Nonetheless behind the occupation names listed in the sources a multi-occupational reality was hidden: in practice many apparent specialists were engaged in more than one trade.

Rural and urban craftsmen

While numerous new crafts evolved in urban settings, such activities were disappearing from peasant farms. This did not mean that crafts vanished from the countryside altogether: craftsmen continued to work in castles, manors, and monasteries. From the early thirteenth century onwards, shoemakers were employed at Danish monasteries, as illustrated by a hagiographic text about a man who lodged at that time with Jacob, a shoemaker in the service of the monks at Ringsted Abbey.³⁸ Specialist craftsmen also practised their trades in rural settlements. In 1313, a smith living on a small plot of land in the Scania village of Grevlunda is mentioned in the sources, and in 1320 we hear of another plot of land in the Schleswig village of Løjtved which was adjacent to a farm on which Tord Skomager (Shoemaker) lived.³⁹ At the same time, the

³⁶ *DF*, 1, p. 122.

³⁷ *DGLM*, 2, p. 61.

³⁸ *VSD*, p. 245.

³⁹ *DD*, 2.7, no. 18; Ulsig, *Danske Adelsgodser*, pp. 122–23; *DD*, 2.8, no. 312.

Canons of Ribe were paid rent by a Christian Skreder (Tailor) in the west Jutland village of Folding, while in a nearby village and also paying rent to the canons lived both Ebbe Skinder (skinner) and a man by the name of Vogn Tøjmaker (*Tøjmagær*), the latter word apparently an archaic term for tailor.⁴⁰ There is little reason to doubt that here we have specialist craftsmen, men who—according to the sources—were living on smaller plots of land than the average peasant.⁴¹ It is impossible to determine whether these village crafts were full-time occupations but presumably this varied from person to person. In some cases, rents paid by the village craftsmen reflected their occupation, as in the case of Hemming Skrædder (Tailor), living in Avnø and renting his plot of land from St Peder's Abbey, Næstved, in 1467 against a yearly payment of linen worth eight *grot*.⁴²

By 1300, and very probably in the hundred years before that date, certain crafts were consistently associated with rural districts. The Bishop of Roskilde's Survey (1370), which lists a large number of farms, can be combined with all the known sources from South Schleswig in the period 1450–1500 to give us the following occupation names (table 10):

Table 10 Craft occupations in the countryside, as indicated by surnames

Occupation	Bishop of Roskilde's Survey	South Schleswig
Smith	9	12
Tailor	7	10
Shoemaker	14	2
Skinner	3	1
Miller	1	1
Bricklayer	1	0
Carpenter	1	0

Source: Roskildebispenses jordebøger og regnskaber, ed. C. A. Christensen (Copenhagen, 1956). Bjørn Poulsen, *Land. By. Marked. To økonomiske landskaber i 1400-tallets Slesvig* (Haderslev, 1988), p. 104.

⁴⁰ *RO*, pp. 74–75.

⁴¹ Cf. *DD*, 3.6, no. 493 (tailor). Cf. R. H. Britnell, "Specialization of work in England 1100–1300", *Economic History Review* 54:1 (2001), 12.

⁴² *Skovklosterregnskaberne*, p. 9.

The list makes it clear that in the Late Middle Ages many smiths, tailors, and shoemakers, as well as a number of skinners, were working in rural areas. In the fourteenth century, peasants left it to others to forge their tools, while their clothes and shoes were also made by specialists. The half-timbered houses that were built in many rural locations during the Late Middle Ages also demanded specialists, as we know from archaeological and written sources.⁴³ For instance, around 1440, a peasant from the south of Jutland built a house and hired a carpenter and his son from a nearby village, the latter helping to carry axes and other tools to the building site.⁴⁴ Sometimes rural craftsmen even worked for the inhabitants of towns. In August 1495 the nobleman Mourids Nielsen Gyldenstjerne engaged a bricklayer from the north Jutland village of Rold to carry out work at the castle of Ålborg.⁴⁵ And in 1531 a wheelwright from a village in Schleswig was working for the king's representative in the town of Haderslev.⁴⁶

While much indicates that there was little difference in the variety of crafts practised in rural settings as opposed to urban ones in the early fourteenth century, it soon became apparent that both civic and princely authorities preferred to limit the number of occupations carried out in rural Denmark. Here only the most basic trades were permitted and it was only in towns that specialization was encouraged. The earliest example of a civic attempt to regulate and monopolize rural crafts is found in a statute issued by Duke Valdemar of Schleswig and dated 1354: this was addressed to all craftsmen, that is all smiths, carpenters, shoemakers, and skinners, in the *herreder* (districts) around the town of Tønder, who were ordered to leave the countryside and move into the town within six weeks. It is telling, however, that one representative of each craft (*ampte*) was allowed to live and work within each parish in the district.⁴⁷ More radical still, in 1447 King Christoffer forbade all smiths, tailors, shoemakers, and other craftsmen to practise their trades in the Funen *herred* of Vindinge and instructed them to move immediately to the principal town of Nyborg. The only exceptions permitted

⁴³ Henriette Rensbo, *Bygninger på landet. Middelalderhuse i Østdanmark 1200–1600* (Århus, 2002), p. 67.

⁴⁴ *SRD*, 8, p. 140.

⁴⁵ RA. Mourids Nielsen Gyldenstiernes regnskabsbog, 1.

⁴⁶ Ethelberg et al., *Det Sønderjyske*, p. 653.

⁴⁷ *DGK*, 1, pp. 233–4.

were the craftsmen living in the households of noblemen.⁴⁸ However, a more realistic approach, and one which maintained a number of basic crafts in the countryside, was recognized by Christian III in 1537 when he proclaimed that all rural craftsmen must move into the towns and settle there with the important exception of blacksmiths, bricklayers, skinners, and those tailors who worked with homespun cloth (*vadmel*). This compromise was reiterated in royal ordinances dated 1540 and 1547.⁴⁹

A constant demand secured the existence of craftsmen in the countryside but, as noted above, the policy of royal and civic authorities was to limit their number. On the other hand, the number of craftsmen and the number of occupations they practised in towns were growing from the fourteenth century, and there is no doubt that these skilled workers comprised a substantial proportion of the urban population. In the 1380s the shoemakers alone in the town of Roskilde had 25 booths.⁵⁰ It is not possible to establish with any certainty how large a proportion of the urban population was comprised of craftsmen but the percentage was probably near to that estimated for towns like Lübeck and Stralsund in the late fourteenth century, namely 40 per cent of the total number of burgesses.⁵¹ There is reason to believe that the number of craftsmen and, in particular, the number of different occupations varied greatly from town to town. There are numerous sources that list the inhabitants of Danish towns and these enable us to count the number of different occupations as indicated by surnames (table 11).

⁴⁸ *DGK*, 3, pp. 521–522.

⁴⁹ John M. Eriksen, *Håndværkerlavene i Danmark 1400–1600*, unpublished thesis for the master degree, University of Copenhagen (1984), p. 28.

⁵⁰ *DMR*, 3, ser. 1, p. 100.

⁵¹ Konrad Fritze, „Entwicklungsprobleme der nichtagrarischen Produktion im hansischen Wirtschaftsraum“, *Hansische Studien*, 4 (Gewerbliche Produktion und Stadt-Land-Beziehungen), eds. Konrad Frize, Eckhard Müller-Mertens and Johannes Schildhauer (Weimar, 1979), p. 16.

Table 11 Number of different occupations practised in Danish towns as indicated by occupational surnames

Town	Year	Households/taxpayers/plots	Occupations
Copenhagen	1377	560	23
Copenhagen	1510	730	48
Malmö	1519	605	42
Husum	1438	249	20
Husum	1540	476	27
Schleswig	1406	198	20
Tønder	1537	147	18
Sønderborg	1537	80	9
Schwabstedt	1504	50	7

Sources: DMR, 3. ser, 1. KD, pp. 280–285. *Lyder van Fredens Kämnersräkenskaper för Malmö 1517–1520*, ed. Leif Ljungberg (Malmö, 1960). Albert Panten, “Die Hauswirte Husums im Jahre 1438”, *Familienurkundliches Jahrbuch. Schleswig-Holstein*, 20, 1981, pp. 5–12. *Sønderjydske Skatte- og Jordebøger fra Reformationstiden*, eds. F. Falkenstjerne and A. Hude (Copenhagen, 1895–99) pp. 327–335. August Sach, *Geschichte der Stadt Schleswig nach urkundlichen Quellen* (Schleswig, 1875). *RA. Slesvig og holstenske regnskaber for 1580. Tønder og Sønderborg amt. Pengeregnskaber 1537. Landesarchiv Schleswig-Holstein, Abt. 162. Schwabstedt Amtsrechnungen 1504.*

Copenhagen and Husum are two examples of towns in which the number of inhabitants and the number of craftsmen were growing, and it seems safe to assume a connection. The relatively few occupations in Copenhagen around 1370, i.e. 23, at a time when the town had some 560 plots of land indicate that we are still looking at a relatively early stage of specialization.⁵² From the data it appears that towns with around 500 taxpayers had 40–50 different occupations represented in the early sixteenth century. A systematic analysis of all Flensburg sources from the period 1400–1500 shows that in this town, which later (1508) numbered 422 households, there were 55 different occupations listed.⁵³ A similar comprehensive examination of all source material relating to Husum from the period 1450–1500 shows that about 45 different crafts were practised in that town. It is clear that such towns had tremendous potential, not only to serve their own inhabitants but also to function as centres for larger regions. On the other hand, of course, we are far

⁵² This is relatively few compared with fourteenth-century towns in England, for example. In 1327 Bristol is known to have had at least 92 occupational surnames, while in Winchester 72 different crafts have been listed for the period 1300–29. Britnell, “Specialization of work”, p. 2.

⁵³ Poulsen, *Land. By. Marked*, pp. 125–133.

from the situation pertaining in the larger European cities: in 1377, London had at least 111 different trades in operation.⁵⁴

As well as the sizeable towns with their broad range of occupations there were smaller ones with only the basic livelihoods represented. It is significant that as early as 1420 the old town of Schleswig was represented by 20 different occupations, a diversity perhaps encouraged by the presence of court life at Gottorp Castle. Small towns like Sønderborg and Schwabstedt in Schleswig could only boast seven to nine different occupations. Nevertheless, they had an urban touch. Schwabstedt, with only 50 households in 1504, supported seven different crafts: two bakers, three tailors, a shoemaker, a weaver, a locksmith, and a carpenter. The Bishop of Schleswig's castle was located in this town, and that too accounted for six craftsmen engaged in four trades: namely, a baker, a journeyman baker, a cook, a journeyman cook, a blacksmith and a locksmith. The Bishop's tileworks employed a master tile maker along with a couple of journeymen.⁵⁵ The situation in villages, even larger ones, was quite different. In the village of Bredstedt, just north of Husum, there were 100 households in 1478. However, the agrarian character of the settlement is made clear by the fact that there were only five occupations practised there and these were typically rural ones: six tailors, four shoemakers, a blacksmith, a miller, and two fishermen.⁵⁶

Craft corporations

Craft corporations, guilds, are known to have existed in Germany, England, and France from around 1100. Their introduction into Denmark is not well documented, although there is ample source material from 1400 onwards. Around the year 1500 there were clearly many guilds in Denmark, mostly of course in the larger towns. In 1525 the records of a meeting of the town council of Copenhagen show that there were representatives from 14 guilds present.⁵⁷

Nonetheless, it is remarkable that the oldest of Schleswig's town laws, which dates from around 1200, states that the bakers were represented

⁵⁴ Colin Platt, *The English Medieval Town* (London, 1976), p. 114.

⁵⁵ Poulsen, *Land. By. Marked*, p. 124.

⁵⁶ Poulsen, *Land. By. Marked*, p. 124.

⁵⁷ *KD* 1, p. 357.

by their master (*senior pistorum*).⁵⁸ Roskilde's town law, dating from 1268, contains a paragraph which proves that there too the bakers were accustomed to acting as a community. It makes clear that, as "established custom" demanded, each new baker must pay 3½ marks to his trade (*officium*) for the privilege of practising his craft: however, this levy was now made illegal by the town lord.⁵⁹ In 1294 we find a similar paragraph in the town law of Copenhagen stating that anyone might be permitted to practise as a baker and that no other baker might hinder this. Further paragraphs in the town law of Copenhagen indicate that other occupations were also organized at that time. It stipulates, for example, that shoemakers, skimmers, and other craftsmen need not pay a fee to their guild for a licence to practise their craft but were merely obliged to pay a duty to the town bailiff.⁶⁰ Finally, another example that indicates the special position occupied by bakers in the thirteenth century: in 1256, the guilds of St Canute, dominated by the noble and merchant classes, ordered that no baker be admitted as a member.⁶¹

It seems clear that the recognition of craftsmen as free men, at liberty to organize themselves into corporate groups, was not accomplished without difficulty. The thirteenth-century town lords regarded these organizations with distrust and tried to combat them. Copenhagen, in particular, where the Bishop of Roskilde reigned supreme, saw conflicts arise in 1294–96, when any kind of guild was prohibited. This was a classic struggle between town lord and communally organized citizens but it also seems to mirror the gradual liberation of craftsmen and their ever-increasing integration into urban communities. The first person with an occupational name to be granted the title of 'burgess' of a Danish town is Henneke Smith of Kalundborg, mentioned in 1291.⁶² On the other hand, it seems clear that in the thirteenth century there were relatively few craftsmen, although some, especially bakers, were organized into groups and these groups were seeking a monopoly in their field.

⁵⁸ *DGK*, 1, p. 9, § 33.

⁵⁹ *DGK*, 3, p. 169, § 15.

⁶⁰ *DD*, 2.4, no. 121.

⁶¹ *DGLM*, 1, p. 43.

⁶² Andrén, *Den urbana scenen*, p. 98.

The first documentation indicating fruitful cooperation between a craft guild and a town council dates from 1349. Ribe was then the primary importer of foreign cloth, and there it appears that the tailors and cloth shearers were two distinct occupations although united in a 'guild and brotherhood' led by masters. In 1349 the council promised this guild that its members would be allowed to reside in the town 'and shear clothes and sew new clothing' because they paid taxes to the town along with all the other citizens.⁶³ The resistance of the thirteenth-century civic authorities to guilds was apparently fading and the growing status of the craftsmen's organisations is underlined by a fine fourteenth-century seal owned by the smiths' Guild of St Peder (*convivium*) at Horsens.⁶⁴

During the fourteenth and fifteenth centuries, craftsmen became more conscious of the unifying aspects of their occupation, their "*embede*" or "*amt*", as it was called.⁶⁵ In 1268, when the term "*officium*" appears in connection with the bakers' community in Roskilde we are led to believe that this word was in use as a common term but it was not until the following centuries that it became widespread. Certainly, the Danish form exists in 1328, when ordinances common to all Scanian towns speak of "*embedsmand*" and "*embede*".⁶⁶ "*Embede*" or "*amt*" came to denote both an individual craft and the cooperation of craftsmen practising this occupation. This cooperation was called a guild, *gilde*, *lav*, or *kompagni*. A direct connection was therefore established between the setting up of a cooperative movement by local craftsmen and the acknowledgement that these men had a professionalized occupation with its own name.

The development of the specialist craftsman was furthered by civic and princely authorities. The regulations issued to the towns of Scania, noted above, state that no craftsman, *embedsmand*, may pursue more than one occupation, *embede*, or other work, and that he should not trade in any items that he had not manufactured himself.⁶⁷ In 1422, as a continuation of this, King Erik the Pomeranian issued a general decree

⁶³ *DD*, 3.3, no. 193.

⁶⁴ Lars Bisgaard, *De glente altre. Gildernes religiøse rolle i senmiddelalderen* (Odense, 2001), p. 34.

⁶⁵ Grethe Jacobsen, *Kvinder, køn og købstadslovgivning 1400–1600. Lovfaste mænd og ærlige kvinder* (Copenhagen, 1995), p. 224.

⁶⁶ *DGK*, 4, p. 336, § 12.

⁶⁷ *DGK*, 4, p. 336, § 12.

that all craftsmen, “*embedsmænd*” in Denmark should live by their own occupation, “*embede*” alone: bakers should live by baking, shoemakers by making shoes, smiths by forging, the goldsmith by practising his craft, the tailor likewise, along with the skinner and the market stall-holder. The town council should consist solely of merchants: these members had the monopoly of brewing beer and were ordered to enforce the correct standards of craftsmanship.⁶⁸ Christian I restated the ordinance of 1422 and gave direct orders to a number of towns in Jutland that craftsmen, “*embedsmænd*”, should live solely by their own “*embede*”: furthermore, they were not allowed to brew beer for sale, nor could they engage in commercial business.⁶⁹ A law promulgated by Christian II in 1521 indicates that brewers were counted as a separate occupation but otherwise perceptions had not changed: brewers, bakers, shoemakers, tailors, goldsmiths, other smiths and other craftsmen, “*embedsmænd*”, should still live by their “*embede*” and were not allowed to trade.⁷⁰ Here we see a sharp division of the labour force into various occupations and as a result craftsmen formed congregations of brethren to ensure that they were, in fact, able to live by the practice of one occupation alone.

From the fifteenth century we see clear signs of a formalized relation between crafts and town councils in the by-laws, the so-called *vedtægter* or *skræer*, which regulated the life of the guilds. The earliest surviving by-laws are from the journeymen’s guilds. In 1403 the journeymen bakers of Copenhagen received their by-law from the mayors and council of the town as well as from the master and members of the baker’s guild, while around 1405 the journeymen shoemakers of Odense received their by-law from the master of the town’s guild of shoemakers.⁷¹ The earliest existing by-law for a master craftsmen’s guild dates from 1412 and was granted by the town council of Malmø to the ropemakers in that town. In the years 1413–1420 we have three by-laws of this kind, namely for tailors and cloth shearers in the town of Schleswig (1415), for the same occupations in Copenhagen (1415), and for the bakers of Schleswig (1418).

After 1420 the number of existing by-laws that survive is huge and includes those granted to the smiths, goldsmiths, shoemakers, tailors,

⁶⁸ *DGK*, 3, pp. 73–75.

⁶⁹ *DGK*, 3, pp. 102, 110; *Repertorium*, 2. ser., 3711.

⁷⁰ *DGK*, 3, p. 460.

⁷¹ *DGLM*, 2, pp. 3–14, 14–23.

cloth shearers, butchers, skinners, furriers, and coopers in a large number of Danish towns. Not surprisingly, shoemakers, smiths, and tailors are those best represented in the sources. By and large, most types of occupation were regulated by the fifteenth century and only a handful of new occupations were allowed to set up separate guilds in the sixteenth century. However, in 1515 we meet a newcomer: the guild of barbers (who also practised as surgeons) in Flensburg.⁷² The very late professionalization of the weavers is mirrored in the fact that it was not until 1550 that we have a guild by-law representing their occupation and that derives from the largest town in the country, Copenhagen.⁷³

In line with the ongoing specialization of work, strategic cooperation in the form of the so-called 'shared guild', *fælleslav*, came into existence. In 1450, the goldsmiths, belt makers (*remmesnidere*), and swordsmiths in the town of Svendborg were granted their by-laws jointly.⁷⁴ By 1481, the goldsmiths and the belt makers belonged to the same guild in that town.⁷⁵ In 1490, painters, goldsmiths, joiners, and glaziers practising in Flensburg were united into one guild, a process that can be seen as a step towards all-inclusive business contracts, for instance major works commissioned by the church.⁷⁶ When the new specialists set up guilds, they could do so in cooperation with craftsmen following other trades. In 1460, for instance, the belt makers (*remmesnidere*) and purse makers of Copenhagen were granted joint by-laws, no doubt in united opposition to the shoemakers and skinners of the town.⁷⁷ In 1488, there were two types of cooper in Flensburg, *bødkere* and *kimmere*, making closed and open barrels respectively, and they were represented by one guild. New occupations also appeared in the older guilds. In 1452, for instance, the smiths' guild in Odense comprised blacksmiths, kettlesmiths, braziers or pot founders (*grydestøbere*), pewterers (*kandestøbere*), belt makers (*remmesnidere*), swordsmiths, crossbow makers, and saddlers, and in 1496 these members were joined by armour makers (*pladeslagere*).⁷⁸ In 1469 the guild of the Slagelse smiths contained blacksmiths, locksmiths

⁷² *DGLM*, 2, pp. 359–369.

⁷³ *KD*, 2, pp. 291–95.

⁷⁴ *DGLM*, 2, pp. 135–140.

⁷⁵ *DGLM*, 2, pp. 187–190.

⁷⁶ *DGLM*, 2, pp. 201–203, 273–282.

⁷⁷ *DGLM*, 2, pp. 156–161; Grethe Jacobsen, *Håndværkets kulturhistorie. Håndværket kommer til Danmark. Tiden før 1550* (Copenhagen, 1982), pp. 23–24.

⁷⁸ *DGLM*, 2, pp. 144–151, 239–241.

(*klejnsmede*), kettlesmiths, and pot founders (*grydestøbere*).⁷⁹ The year 1506 sees an agreement whereby the smiths' guild at Ystad, which had hitherto consisted of blacksmiths, locksmiths, spur makers, and knife makers, promised to admit goldsmiths, belt makers (*remmesnidere*), purse makers, and swordsmiths.⁸⁰ The history of the craftsmen's guilds clearly mirrors the formative period that characterizes late medieval crafts themselves.

The guilds were led by masters, *oldermænd*, and their assistants but a uniform picture cannot be drawn from the rules, the *skræer*, of these corporations: only certain generalized traits can be identified. Firstly, it is clear that the craftsmen's guilds exercised religious functions. This factor has to some degree been underestimated in previous research but it is evident that religious practice was one of their most important purposes, indeed it is probably in religious observation that their origin should be sought. The numerous plagues that swept the country from 1348 onwards provided a tragic backdrop for increased demands to commemorate the dead, as explicitly expressed in one of the earliest surviving guild rules.⁸¹ As a consequence of this demand, lists of names of deceased guild members comprise some of the oldest archives associated with these organizations. These groups were also required to arrange funerals, masses, and processions, to set up altars, and to convene meetings commemorating fellow guild members.⁸² In this connection, it is significant that some fifteenth-century craft guilds, especially those of the journeymen, had members following many different occupations. It would appear that it was only gradually during the fifteenth century that the professional functions of the craft guild became really significant.

The professional content of the guild by-laws varies considerably. For example, we can examine the rule of the smiths of Ribe, dating from 1450. Here the council of Ribe testifies that it has given the smiths' craft (*smedeembedet*) in the town the right to practise their livelihood and impose their own rules. Only citizens of Ribe were allowed to practise as smiths. Those who wished to become master craftsmen must apply to the guild twice. The masters of the guild should then inspect their work to ensure that the correct standard had been attained. No foreign

⁷⁹ *DGLM*, 2, pp. 162–167.

⁸⁰ *DGLM*, 2, pp. 296–297.

⁸¹ *DGLM*, 2, p. 15.

⁸² Bisgaard, *De glemte altre*.

smith might sell his services to the people of Ribe except at the free yearly fair. Wandering journeymen should give a *skilling* to the guild as well as one English sterling for beer. A fine was fixed for masters who failed to pay their journeymen properly and also for journeymen who did not fulfil their obligations. It was stressed that no master was to lure journeymen from other masters. Attendance at guild meetings was compulsory and the social practices that accompanied these meetings are described vividly.⁸³

Generally, the guild rules make it clear that the craft organisations aimed at monopoly in the production and sale of goods manufactured by their members.⁸⁴ The most important members of these organisations were the master craftsmen. To become a master, a man was required to pass a test which is often carefully described in the rules. In 1491, the guild of the Roskilde smiths stipulates that in order to qualify as masters, their members should fulfil the following: from a given quantity of iron the blacksmiths should be able to forge an axe, a spade, and a horseshoe; the locksmith should make a hook, a pair of spurs, and a lock; while the kettlesmith should produce a kettle of fixed size.⁸⁵ In other rules we read that the shoemakers should manufacture shoes, while boot and belt makers were required to make horse trappings, purses, and halters. Certain bakers were required to bake wheat and rye bread in the oven belonging to the master of the guild, products that were then tasted by other members. In such ways was quality secured. On his acceptance into the guild as master craftsman, a member was to lay on a feast for all the guild brethren. Very important, of course, was the relationship between the master craftsman, his journeymen, and the younger apprentices. Here the aim was to limit the size of workshops and to focus on first-class cooperation. The shoemakers of Flensburg, for instance, ruled that no shoemaker was to have more than two journeymen and one apprentice, and in a similar vein the coopers of Malmö allowed themselves only two journeymen each.⁸⁶

⁸³ *DGLM*, 2, pp. 114–119.

⁸⁴ Cf. Jacobsen, *Håndværkets kulturhistorie*, p. 135 ff.

⁸⁵ *DGLM*, 2, pp. 203–215. The man who wished to practise as a kettlesmith in the town of Odense was required to make three kettles of varying sizes: one with the capacity of two barrels, one with the capacity of two and a half barrels, and one with the capacity of a single barrel. A swordsmith in the same town had to solder and finish a sword and dagger. *DGLM*, 2, pp. 239–241; Jacobsen, *Håndværkets kulturhistorie*, pp. 141 ff.

⁸⁶ *DGLM*, pp. 84–100, § 20, pp. 285–291, § 5.

Several guild by-laws illustrate how journeymen were integrated into the peripatetic training system common in northern Europe, as they wandered from town to town and learned their trade by working for masters practising across a broad geographical area.⁸⁷ However, other professional matters were also regulated by guild rules, the purchase of materials, for instance. The shoemakers of Malmö thus permitted nobody outside their guild to buy the ox-hide and calfskin marketed by local peasants.⁸⁸ Shared purchases were arranged when raw materials were needed. Bakers in the town of Schleswig were obliged to share with their guild brethren any cheap quantity of rye they bought, while the butchers in the same town operated a similar practice in the case of cheap purchases of meat.⁸⁹ Guild members were not allowed to outbid other members in the buying of raw materials. Sales and prices could also be regulated.⁹⁰ Not until the sixteenth century did the authorities interfere in price regulation, as in 1524 during a time of fiscal chaos, when the council of Malmö fixed the weight of baker's bread in relation to the price of wheat and rye.⁹¹

The guilds were thus generally able to control purchases and sales by their members. However, it was still rare in the fifteenth century for them to try to limit the number of master craftsmen in certain occupations, presumably because their power was so limited that they were still not able to carry such a measure through, but also, perhaps, because there was as yet no need for such regulation.⁹² By the 1540s the question of exclusivity would become a pressing one for most guilds.⁹³

In the Late Middle Ages there was generally an organic relationship between king, council, and guild. However, by the very end of the Middle Ages we see that the increase in royal power could break

⁸⁷ *DGLM*, 2, pp. 8, 65, 114–119 (§ 5).

⁸⁸ *DGLM*, 2, pp. 119–122, § 3.

⁸⁹ *DGLM*, 2, pp. 34–38, § 3; pp. 38–44, § 15.

⁹⁰ For instance, at Flensburg no baker trading in the market-place might sell loaves which were heavier than those offered by other guild members. *DGLM*, 2, p. 154, § 19.

⁹¹ *DGLM*, 2, p. 399–401.

⁹² Among the few examples are the rope makers of Malmö, who decided that there should be no more than 24 masters; the goldsmiths of Copenhagen, who fixed the maximum number of masters at 10 in their rules dated 1445; the coopers of Flensburg, who stipulated in 1488 that their members should not exceed eight coopers and six *kimmere* (a special kind of cooper); the barbers of Flensburg, who limited themselves in 1515 to only four guild brethren.

⁹³ Jacobsen, *Håndværkets kulturhistorie*, pp. 228–229.

this relationship. In 1507 King Hans banned all shoemaker's guilds in Denmark and threw the occupation open to everybody. The reason for this, it was said, was that the council of the realm and the common people had been complaining about high prices for shoes and boots.⁹⁴ In the years after 1508 the king once more permitted the shoemakers to form guilds and this led to a series of standardized guild regulations. A similar act of control took place in the Schleswig town of Haderslev in 1511, when the duke annulled the rules of the smiths' guild and stipulated new ones on the grounds that he considered the old ones "offensive".⁹⁵ In 1526, the same duke, who in the meantime had become the king of Denmark as Frederik I, ruled that every burgher of Husum should be able to practise his craft without paying entrance money to the local guild. Some months later Frederik issued a nationwide decree that all guilds (*gyllær eller lagh*), tailors' guilds, smiths' guilds, and all others, should be disbanded. In future the craftsmen would be members of a common guild along with the mayors of their town—whatever he meant by that. This decree had no effect, but its intention was clearly to control prices.⁹⁶ It was an expression of the medieval concept of just prices: these were obviously the concern of the guilds and even if the main objective of this cooperation by craftsmen was to secure the sale of quality products by means of what could be termed cartels, this practice could all too easily lead to internal price-fixing to the disadvantage of the consumers.

Crafts not covered by guilds

Some crafts were either so rare or so humble that they were not organized. Among the most important but few in number were the mint masters, who belonged to an international group of elite workers. In the early fifteenth century the mint master at Næstved and Lund was a goldsmith and burgher of Deventer in the Low Countries, one Gerrit Gozewijnszoon Comhaer, whose family followed the same occupation

⁹⁴ *DDR*, 2, p. 183–184.

⁹⁵ Lars Bisgaard, Lennart Secher Madsen and Bjørn Poulsen, "Haderslev smedes skrå fra 1511", in *Gilder, lav og broderskaber i middelalderens Danmark*, eds. Lars Bisgaard and Leif Søndergaard, Odense 2002, pp. 351–371.

⁹⁶ *DGLM*, 2, pp. 403–407.

in Lüneburg, Salzwedel, Bremen, Danzig, Stockholm, and Lübeck.⁹⁷ Other people of this kind, albeit more modest from a social perspective, were the tile makers, often working at manors or monasteries or for town councils, and the bell founders, who were only partially organized into guilds with founders of other kinds. The bell founders often worked near the churches in which their products were to be hung and their itinerancy precluded them from being bound to a local guild. The wealth of the master tile makers and master bell founders must also have set them apart from other craftsmen. Other craftsmen distinguished by their itinerant lifestyle in the Late Middle Ages were the skilled artisans able to carve sculptures or decorate an entire church with their wall-paintings.⁹⁸ Organ makers, printers, and shipbuilders, whose trades appeared around the year 1500, were so few and self-sufficient that cooperation was scarcely possible.

At the other end of the spectrum were the modest crafts closely connected with the home and often practised part-time: these included the basket maker (*kurvemager*), beaker maker (*bægermager*), spindle maker (*tenskerer*), seamstress (*sømmerske*), and candlemaker (*lysestøber*). The potters also remained outside organized guilds.

As well as the crafts traditionally associated with rural areas, the sources record certain villages where female weavers (*vævekoner*) or potters of both sexes were at work.⁹⁹ Other rural occupations were charcoal burning, and—in Halland and Jutland—iron smelting. None of these livelihoods had any affiliation with craft guilds. In any case few people followed these occupations full-time. The small groups of craftsmen living near castles and manors were not subjected to pressure to join guilds. The millers operating in town and country also worked alone, and often fulfilled contractual obligations for towns, manors, and monasteries. Furthermore, the craftsmen working directly for princes, noblemen, bishops, and abbots, and whose work took them to castles and monasteries, were normally outside every organisation. In 1509, just at the point when urban shoemakers were attempting to organize fellow rural craftsmen into guilds, we see King Hans explicitly guaran-

⁹⁷ Georg Galster, *Unionstidens udmøntninger. Danmark og Norge 1397–1540. Sverige 1363–1521* (Copenhagen, 1972), p. 18.

⁹⁸ Jan von Bonsdorff, *Kunstproduktion und Kunstverbreitung im Ostseeraum des Spätmittelalters*, (Helsinki, 1993).

⁹⁹ On the location of pottery kilns see Jette Linaa, *Keramik, kultur og kontakter. Køkken- og bordtøjets brug og betydning i Jylland 1350–1650* (Aarhus, 2006), pp. 123–125.

teeing noblemen and prelates in and around Odense the right to retain shoemakers in their service.¹⁰⁰ Most noblemen employed a number of skilled men and women. In 1452–57 the tradesmen working at Flensburg Castle included a baker, two journeymen bakers, a cook, and a miller. Tailors were also sometimes attached to noble households, as indicated by the membership lists of Flensburg's most prestigious guild, the Merchant Guild of Our Lord, which include several tailors "of the castle".¹⁰¹ In 1499, the north Jutland manor of Aagard, belonging to the powerful magnate Mourids Nielsen Gyldenstjerne, employed a barber (*bartskær*) and a cook, as well as a baker and his daughter, while the farm attached to the manor boasted a cook, a baker's boy, and a tile woman (*teglkone*).¹⁰² In the early years of the sixteenth century, Queen Christine had in her service a tailor, a barber, and a brewer.¹⁰³

Sale and payment

In general, however, crafts moved away from individual households and became market orientated, while their products developed into commodities. One of the earliest surviving examples of this is a censer made in thirteenth-century Svendborg by the above-mentioned Master Jakob Rød. On this censer we read: "Master Jakob did me, Toke bought me".¹⁰⁴ Here we have a product commissioned by and manufactured for a specified customer.

Products could be made for special customers or sold freely on the open market. This free marketing generally took place in workshops or in the market-place. By c. 1200 the market-places at various towns in Schleswig featured booths from which butchers sold their wares in public. Normally transactions in the market-place were based on cash but barter was also known.¹⁰⁵

¹⁰⁰ Jacobsen, *Håndværkets kulturhistorie*, p. 250.

¹⁰¹ Poulsen, *Land. By. Marked*, p. 129.

¹⁰² Troels Dahlerup, *Gyldendal og Politikens Danmarkshistorie*, vol. 6 (Copenhagen, 1989), p. 120.

¹⁰³ *DCH*.

¹⁰⁴ Carelli, *En kapitalistisk anda* (see above, n. 10), p. 439 (*magister iakobus me fecit, toke kyppte mik*).

¹⁰⁵ *Aktstykker vedkommende Staden og Stiftet Aarhus*, ed. J. R. Hübertz (Århus, 1845), pp. 32–33.

The shoemakers were allowed to sell their goods through a window in their workshops and sources from around 1500 reveal that bread was often bought direct from the bakery.¹⁰⁶ Purchases and services from the workshops could be paid for on the spot.¹⁰⁷ However, transactions could also be put onto a customer's account and payment deferred. In some cases, services from the customer could offset the cost.¹⁰⁸ If a craftsman needed a large quantity of raw material, this could be supplied by the customer, a situation that arose in 1510, for instance, when the shoemaker Hans Tygesen of Svendborg was working at the royal castle of Tranekær on the island of Langeland.¹⁰⁹ From this point it is a short step to the "farming out system" (German: *Verlagssystem*) practised in the 1520s by the Malmø merchant Ditlev Enbeck. He sold wood to the coopers in his town and they bound themselves to supply him with a specified number of barrels.¹¹⁰ Similarly, the account books of the Flensburg merchant Namen Jansen show that in 1532 he supplied a blacksmith in the village of Bredstedt with iron and in return the smith had to provide him with horseshoes and a good spade.¹¹¹ More complex jobs often had to be organized by the customers themselves. In 1452, Duke Adolf VIII of Schleswig desired a coat of marten fur: he had to buy 12 marten pelts for the sum of eight marks and four *skilling* and then get them tanned at the cost of 12 *skilling*. Next he had to send a man to Lübeck to pick up two barrels of chalk, this part of the process cost him 20 *skilling*. Finally, a furrier was paid 12 *skilling* to work the skins over with the chalk and make up the coat.¹¹²

¹⁰⁶ *Næsbyhoved lens regnskaber*, p. 191.

¹⁰⁷ In 1510, for instance, a pot founder received five *skilling* for repairing kettles and in 1502 a tailor received three *skilling* for making three pairs of breeches. *DCH*, p. 354; *Næsbyhoved lens regnskaber*, p. 193.

¹⁰⁸ An example is found in the town of Næstved, where the belt maker Lasse Remmesnider lived in a house which he rented from the local abbey. In both 1473 and 1474 he was allowed a cheaper rent because he tanned leather and hides for the monks. *Skovklosterregnskaberne*, p. 104.

¹⁰⁹ The accounts from Tranekær Castle show a shoemaker receiving eight hides from cows slaughtered in situ and in return supplying shoes for the sentries, the cook's boy, a brewer and a journeyman brewer, a carpenter, and four female servants; he also tanned an extra hide which the carpenter used. This is a good example of a craftsman's record of the raw materials supplied to him. *RA. Regnskaber før 1559*, Reg 108 A, Ny pk. 3. Tranekær lensregnskab 1510.

¹¹⁰ Emilie Andersen, *Malmøkøbmanden Ditlev Enbeck og hans regnskabsbog. Et bidrag til Danmarks handelshistorie i det 16. århundrede* (Copenhagen, 1954), p. 109; Jacobsen, *Håndværkets kulturhistorie*, p. 162.

¹¹¹ Stadtarchiv Flensburg, Altes Archiv. B. Königliches Gymnasium, Nr. 565, p. 64.

¹¹² *RA. De sønderjyske fyrstearkiver. 1452. Flensborg len. Pengeregnskab.*

Many craftsmen delivered their goods or services to the customer direct and in such cases they were often paid in cash. Late medieval accounts show many examples of these individual transactions. In 1494, a barber was thus paid four *hvide* to shave the nobleman Mourids Nielsen Gyldenstierne.¹¹³ Bills were settled on the spot, of course, if customers were travelling.¹¹⁴ Many services were also paid for on delivery, as in 1518 when a locksmith received three *skilling* to make the key for a door.¹¹⁵ However, work carried out for a customer could also be put on account. A list of jobs carried out by a smith working at Flensburg Castle in 1452 shows 80 assignments of various types and indicates that settlement was to be made at the end of the year.¹¹⁶

In many cases day wages were the norm. Few regulations pertaining to wages still exist but a by-law granted to the carpenters of Copenhagen in 1515 stipulates that a master craftsman must receive four *skilling* a day “in the summer”, a master journeyman must have three *skilling*, and the other journeymen less.¹¹⁷ This payment of four *skilling* a day was not uncommon at that time.¹¹⁸ In other cases we see lower day wages. In 1509, Oluf Tømrer [Carpenter] worked for 10 days at Queen Christine’s lodgings in Odense and had to be content with three *skilling* a day.¹¹⁹ Henrik Tømmermand [Carpenter], who worked for four days on the watchman’s gallery and a staircase at Nykøbing Castle in 1509, earned 2½ *skilling* per day.¹²⁰ A workman who paved the yard at the same castle over a period of 25 days that year earned only two *skilling* a day for his hard work.¹²¹ A little less than two *skilling* a day was allocated to a carpenter who worked in the brewing room

¹¹³ RA. Mourids Nielsen Gyldenstiernes arkiv. Regnskabsbog III.

¹¹⁴ For example, in 1498, when Duke Frederik rested for the night in the town of Flensburg and paid 11½ *skilling* to a local smith for shoeing his horses. DMR, 1. ser., 1, p. 471.

¹¹⁵ *Lyder van Fredens Kännarsräkenskaper*, p. 96.

¹¹⁶ Poulsen, *Land. By. Marked*, p. 129.

¹¹⁷ DGLM, 2, pp. 369–374, § 3.

¹¹⁸ This formed the basis of the payment made to several carpenters working for the Malmø town council in 1517; to Morten Snedker, who fashioned a cupboard for the castle at Nykøbing Falster during a 7-day period in 1507; and to Hans Murermeister, who also worked in Nykøbing in 1507, building walls and a chimney in the bathhouse, laying a floor, and repairing a kiln. RA. Reg. 108 A. Ny pakke 3. Nykøbing len 1509, p. 7r., 8v.

¹¹⁹ DCH, p. 337.

¹²⁰ RA. Reg. 108 A. Ny pakke 3. Nykøbing len 1509, p. 8v.

¹²¹ RA. Regnskaber for 1559. Reg. 108 A. Ny pakke 3. Nykøbing len 1509, p. 8v.

at Gurre Castle in northern Sealand for 12 days.¹²² Clearly day wages varied from craft to craft and from job to job and the by-laws granted to carpenters in Copenhagen noted that the length of day was also taken into account when wages were fixed.

We have little information about the fluctuation of wages over time but generally a bricklayer's day wages paralleled the rise in prices that took place in the first part of the sixteenth century and thus rose from four *skilling* in 1509 to ten *skilling* in 1549.¹²³ Wages often appear to have remained stable, a point doubtless helped by the food rations frequently included as part of the payment made to day labourers. In 1487, for instance, a smith was working in the royal mill at Kruså, along with several carpenters and sawyers; in addition to their cash wages, they were given 11 barrels of beer, a large quantity of cod, half a barrel of butter, 10 loaves of bread, a cow, six sheep, and 10 half pigs. The value of these provisions was about 30 marks, roughly the same as their wages. No wonder, then, that the accounts of the chapel of St Jørgen in Schleswig stipulate that the craftsmen employed there should carry out their work "with their own food and beer".¹²⁴ Fixed payments at castles and manor-houses were notable for their regularity. Here the craftsmen normally received their salaries twice a year. For instance, in 1457 the baker at Flensburg Castle was paid four marks twice a year, i.e., a total annual payment of 128 *skilling*, about the same as a daily paid craftsman on the free market could earn if he was lucky enough to find work every day of the year.¹²⁵

Market patterns

To some extent the history of Danish crafts illustrates the ideal medieval "*Stadtwirtschaft*", which Karl Bücher defined as direct exchange between the town and its rural surroundings.¹²⁶ It was very common for Danish craftsmen to work in the town in which they also lived, or to provide

¹²² *DCH*, p. 161.

¹²³ Jacobsen, *Håndverkets kulturhistorie*, p. 239.

¹²⁴ Poulsen, *Land. By. Marked*, p. 130.

¹²⁵ *RA*. De sonderjyske fyrstearkiver. 1457. Regnskab af amtmand i Flensborg Godske Ahlefeldt; Jacobsen, *Håndverkets kulturhistorie*, p. 240.

¹²⁶ Karl Bücher, *Die Entstehung der Volkswirtschaft. Vorträge und Aufsätze*, (17th ed. Tübingen, 1926).

goods or services for customers in the immediate hinterland. As a consequence, the relatively uniform specialization associated with medieval Danish towns came into being. The same expert knowledge was built up in many places and expertise aimed at the export market had little potential for growth. A homogeneous and flat structure developed.

Crafts targeting the export market were relatively few and were generally confined to small workshops. On the other hand, long-standing trade could be found which criss-crossed the hinterland of individual towns. From the thirteenth century onwards Denmark received a stream of raw materials and artefacts from abroad. The accounts belonging to the Malmø merchant Ditlev Enbeck record that in 1521–35 he imported hops from northern Germany for the brewers of his town, not to mention wood for the coopers, glass and lead for the glaziers, linen for the tailors and hatters, tinplate for the lantern makers, and copper for the kettlesmiths.¹²⁷ Finished products were also brought in from Germany and the Netherlands. From the thirteenth century, increasing quantities of cloth came from weavers in the Low Countries. Beer was imported from breweries in Lübeck, Wismar, Hamburg, and Einbeck, while small wares were imported from both north and south Germany by the barrel-load. Religious art, ceramics, and copper pots were more often than not imported from Germany. The customs accounts of Gottorp dating from around 1500 show that several men from Kiel with the surname ‘pewterer’ paid duties for their north-bound carts carrying jugs, metalware, and pewter.¹²⁸ The by-law governing the furriers at Flensburg indicates that furs were being brought into the town from outside, doubtless a reference to the import of German fur which was perceived as a threat.¹²⁹ In the field of art, the influx from Germany was overwhelming, especially in the Late Middle Ages, while in earlier times we see a similar import from France.¹³⁰ A fine example of German influence, which also indicates that foreign workmen were employed in Denmark, is the huge altarpiece at Aarhus Cathedral, made in 1479 by Master Bernt Notke of Lübeck and his journeymen.¹³¹

¹²⁷ Andersen, *Malmøkøbmanden Ditlev Enbeck*, pp. 109–111.

¹²⁸ Poulsen, *Land. By. Marked*, p. 136.

¹²⁹ *DGLM*, 2, p. 106.

¹³⁰ Bonsdorff, *Kunstproduktion und Kunstverbreitung*.

¹³¹ Erik Moltke, *Bernt Notkes altertavle i Århus domkirke og Tallintavlen*, 1–2 (Copenhagen, 1970).

Production carried out in Danish towns for a wider market was very limited. People like bell-founders and printers naturally had to sell their products over a larger area. For instance, the bell-founder Jes Smed (Petersen), whose father presumably followed the same occupation in the Jutland town of Randers (see above), was based in Slagelse from 1470 and sold his bells to churches throughout Sealand and Scania. As the market seemed better in Jutland, Jes moved there, possibly based himself at Flensburg, and continued to make bells for churches in Funen and southern Jutland.¹³² In 1533 a Copenhagen printer named Hans Vingård (Wyngarthener), who originally came from the German town of Stuttgart, printed a "History of Denmark" which was sold by both a Copenhagen bookseller and an agent in the Jutland town of Viborg.¹³³ Products aimed at the wider market could be distributed by itinerant vendors and sea transport was often involved. For instance, a well-known fifteenth-century workshop which produced wall-paintings for at least 38 Danish churches on the islands of Møn and Lolland, as well as in Scania, seems to have been transported from place to place by boat.¹³⁴ However, apart from such specialized operations, one of the best examples of large-scale market production is probably the brewing of the so-called *kakkebille* beer from the Schleswig town of Eckernförde. From the mid-fifteenth century onwards this beer gained a foothold in the other east Schleswig towns of Schleswig, Flensburg, and Haderslev. In 1539, Haderslev was visited by 36 ships from Eckernförde carrying 77 *læster* and four barrels of *kakkebille* in their holds. The east and west parts of Schleswig offered permanent markets for this excellent beer, and from around 1500 onwards it was consumed in large areas of Denmark, even at the royal court. In 1530 we also hear that a yacht put into the harbour at Eckernförde with orders to ship *kakkebille* to Königsberg for the Duchess of Prussia.¹³⁵

However much urban craftsmen attempted to cling to a monopoly, there were times when this was lifted and the market thrown open to both locals and foreigners. This situation arose during the fairs, the

¹³² Uldall, *Danmarks middelalderlige Kirkeklokker*, p. 195.

¹³³ Jens Vellev, Per Hofman Hansen and Allan Karker, *Hans Tausen og Hans Vingård, reformator og bogtrykker i Viborg* (Viborg, 1986).

¹³⁴ Ulla Haastrup, "Kirkernes billeder", in *Middelalderens Danmark. Kultur og samfund fra trosskifte til reformation*, eds. Per Ingesman, Ulla Kjær, Per Kristian Madsen and Jens Vellev (Copenhagen, 1999), p. 282.

¹³⁵ Bjørn Poulsen, "Øl i Sønderjyllands senmiddelalder", *Sønderjysk Månedsskrift* (1996:12), pp. 308–312.

largest of which were undoubtedly the Scania markets held every autumn, when the Hanseatic merchants brought their own craftsmen with them. The by-law granted to the coopers of Malmø records that in the autumn of 1499 certain merchants visited the town, bringing with them their own “*tilslagere*”, that is specialists who attached the lids to herring barrels. The coopers had to tolerate these rivals but only permitted them to work in the merchants’ own quarters.¹³⁶ A town law promulgated by Christian II in 1522 refers to Danish coopers, who, either in person or represented by their journeymen, were sailing to annual fish markets throughout the realm: the law stipulates that they were obliged to produce documentation to prove that they were properly trained.¹³⁷ Many Danish towns held yearly fairs where buying and selling were unrestricted. This is explicitly admitted in the craftsmens’ by-laws: for instance, the smiths of Ribe decided that foreign smiths would only be allowed to sell their products in Ribe at the fair held there on the Feast of the Nativity of the Blessed Virgin Mary (8 September).¹³⁸ For such occasions the products were transported to the market by the craftsmen themselves, as well as by itinerant traders. We assume, for instance, that in 1506 a Laurits Bæltmager [belt maker], who took himself to the above-mentioned fair with a basket (“*tafelir*”), came to sell his own products.¹³⁹ In addition to the fairs, certain craftsmen sold their own and others’ goods outside their home towns. The ideal, supported by both the king and the town councils, was that a craftsman might not trade in his own goods: while this was not fully respected, it did result in the spread of production beyond the surroundings of a particular town. Around 1490 the town council of Ålborg thus permitted a craftsman to continue trading, as well as practising his craft, provided that he paid the proper town dues. Furthermore, in Næstved at about the same time King Hans dispensed with the common rule that craftsmen were not allowed to take part in trade. This dispensation was confirmed

¹³⁶ *DGLM*, 2, pp. 285–291.

¹³⁷ *DDR*, 3, pp. 86, 136.

¹³⁸ *DGLM*, 2, pp. 114–119, § 3.

¹³⁹ *DCH*, p. 181. In September 1485, a Claus Kandestøber [Pewterer] was heading south and passed the customs office at Gottorp near Schleswig with half a *skipfund* of new pots and jugs. He was accompanied by Kone Grydestøber [Pot founder] with a large quantity of cod as well as 15 *lispund* of copper: they were probably taking their own products to the yearly fairs at Rendsburg and Kiel, or at least this is suggested by the date on which they passed by. Poulsen. *Land. By. Marked*, p. 128.

in 1518.¹⁴⁰ Customs accounts reveal that craftsmen like coppersmiths, bakers, and furriers often brought their raw materials home from their travels and sold other goods in exchange. The goldsmiths frequently participated in large-scale dealings that included many types of product, and people like the bell-founder Peter Hansen of Flensburg carried out business transactions on the same scale as the prosperous merchants of his town. During the years 1484–1520 Peter sold bells and baptismal fonts to churches throughout Jutland and Funen; he bought herds of cattle in north Jutland, where he founded many of his bells, exported the cattle to north German towns and in return carried copper and other goods back to his home town of Flensburg.¹⁴¹

It is obvious that the wide range of crafts carried out in large towns during the Late Middle Ages undermined the principle of self-sufficiency. The larger towns gained ground as regional centres and sold their services and goods to smaller towns in the neighbourhood. In many cases people living in smaller towns would turn to specialists from the larger towns.¹⁴² In the same way, skilled painters who were able to work as carvers could sell their products in the towns and also offer their services to village churches in the region.¹⁴³

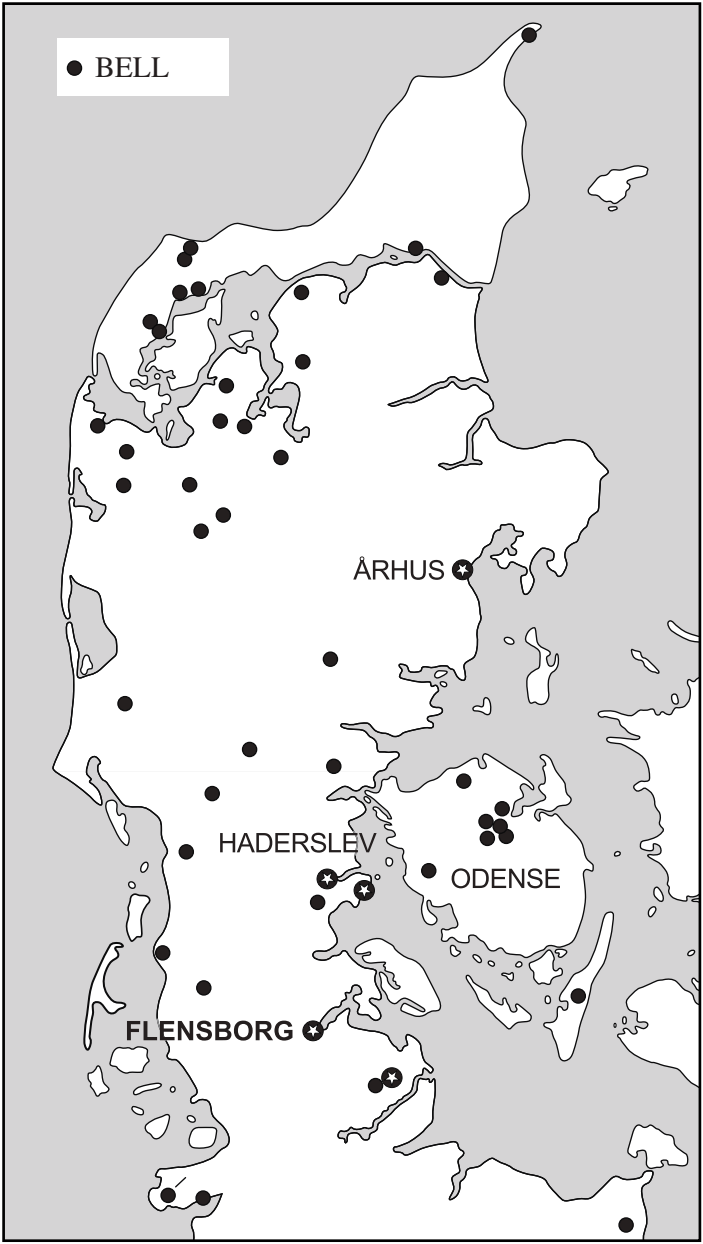
The normal basis for craft production remained the small workshop, with all the restrictions that this imposed upon production. There were very few exceptions to this rule, of which perhaps the tile and brick works were the most important. The building of a single church could necessitate the production of more than half a million bricks, so it is clear that large-scale production was needed. For this reason the larger tileworks were often run by establishments rich in capital, such as monasteries, castles, and town councils. An itemized contract drawn up in 1302 between the Abbey of St Clare, Roskilde, and a tile maker called Claus Teglblænder, probably an itinerant German craftsman, shows the entrepreneurial nature of production. The sisters at Clare

¹⁴⁰ *DGK*, 3, p. 253.

¹⁴¹ Bjørn Poulsen, "Klokkestøberen", *Skalk* (1986:5), 26–29; Poulsen, *Land. By. Marked*, p. 128.

¹⁴² In 1504 the scribe employed at the castle in the miniature town of Schwabstedt thus paid joiners and carpenters from the large neighbouring town of Husum to carry out work for him. Landesarchiv Schleswig, Abt. 162, Schwabstedt Amtsrechnungen 1504.

¹⁴³ For instance, Vilhelm Klover, named "*maler*" (painter), a respected man living in Flensburg, made an altarpiece for Duke Frederik's chapel in the neighbouring town of Schleswig. Poulsen, *Land. By. Marked*, p. 128.



Map 6. The distribution of churches furnished with bells and baptismal fonts produced between 1475 and 1512 by the Flensburg bell founder Peter Hansen

Abbey committed themselves to paying Claus 12 *øre* in cash for every 120 bricks he delivered and more for roofing tiles. They were also to supply him with any tools he needed, including carts, wheelbarrows, hoes, spades, buckets, and four moulds of varying shape. In addition he was to have coal for the kilns. In return Claus would be responsible for the work, dig up the clay when needed, transport it the tileworks, pay the workers, fire the tiles, and so on. He was also to move the tiles to a given distance from the oven. The contract was drawn up for teams of six or eight workers.¹⁴⁴ In spite of this carefully documented undertaking, a dispute broke out between the abbey and the tile maker.¹⁴⁵ An account dated 1508 describes the work of another tile maker engaged at Tranekær Castle, Langeland, a man named Per Tegslager. This shows the revenues Per made from bricks and roofing tiles sold in large quantities to the churches in the region and to religious houses in the towns of Nykøbing Falster and Svendborg, as well as to individual customers. These expenses included outlays on a bucket, rope, wages, and food for five journeymen tile makers.¹⁴⁶

The Late Middle Ages

Crafts in Denmark were based on small workshops and never grew to a size capable of exporting their products on a grand scale. Nonetheless, under the powerful influence of north Germany, a broad spectrum of crafts evolved and these embraced many types of production. In common with much of Europe, procedures for training and practice were put into place: these included craft apprenticeships and craftsmens' guilds, the latter fulfilling both professional and social functions. While crafts were practised in Denmark from the Viking Age and even earlier, these changes to their organization in themselves mark an astonishing development, clearly separating the medieval period from the earlier one. The rapid development of urban specialization within various crafts which took place in Denmark, especially after 1350, was also crucial. This factor, combined with a relative and sometimes absolute growth in

¹⁴⁴ *DD*, 2.5, no. 201, 345.

¹⁴⁵ *DD*, 2.6, no. 19.

¹⁴⁶ *RA*, Reg 108 A, ny pakke 3. Per Tegslagers regnskab 1508. The total income was just over 150 marks.

the population of towns, also mirrors a real growth in expertise. This can only be taken as evidence of a vibrant and expansive period of production and thus forms part of the picture of the Late Middle Ages as a time when resources in Denmark were increasingly mobilized.

TAX AND TRADE

RURAL LEVIES AND ROYAL FINANCES

This chapter examines the transfer of resources from the Danish population as a whole to the elite, i.e. the Crown, the Church, and the nobility. There are two specific focuses: first, peasant farms, which in the Late Middle Ages” made up some 85 per cent of the total and probably numbered 80,000; and secondly, royal revenues.¹ Resources were transferred from the rural population to all ruling groups and in general cannot be treated as separate entities. From an analytical point of view, however, ancient customs based on tribute and payment in labour services or kind are distinct from later sources of revenue, such as regular royal taxes, land rents, and, in the case of the Church, tithes.

Towards Royal Taxes

It seems clear that during the Viking Age royal power in Denmark frequently depended on the intimidation of other peoples and the collection of tribute from them. Through plunder and the control of trade, rulers secured the silver needed to pay an army of housecarls (a *hird*). The best example of this is the English *danegeld*, an enormous levy which would obviously have strengthened the position of King Cnut in his Danish homeland as well as in England.²

In Denmark those rulers called ‘kings’ must also have been able to draw on a considerable labour force. Ambitious building projects like the *Dannevirke*, the large rampart that runs along the southern border of the realm and was started already in the seventh century, can hardly have been built without the existence some kind of conscripted workforce. The earliest Danish charter to survive, dating from 1085, records the king’s demands for haulage, an obligation entered as *redskud*.³

¹ On the quantitative relation between urban and rural population, see chapter on “Towns and Markets”.

² M. K. Lawson, “The collection of Danegeld and Heregeld in the reigns of Aethelred and Cnut”, *The English Historical Review* 99 (1984), 721–738; John Gillingham, “‘The Most Precious Jewel in the English Crown’: levels of Danegeld and heregeld in the early eleventh century”, *The English Historical Review* 104 (1989), 373–406.

³ *DD* 1. 2, no. 21 (*reddarii equi*).

Sources dating from the next two centuries note various duties involving labour and haulage, duties termed *redskud*, *inne* and *ægt*, for example. It is certainly possible that such obligations were the first instances of a general requirement on the part of the populace to render labour service to the king. At the same time, payment in kind continued to be demanded and appears to have been regarded euphemistically, at least by the recipient, as the offering of “gifts”.⁴

Even when it is possible to document private possession of land in eleventh-century Denmark, there is a sense that the difference between the ownership of land and the renting of it was not particularly clear, and it was only during the twelfth and thirteenth centuries that possession and tenancy took on the characteristics of diametrically opposed concepts.⁵ As noted above, there is reason to believe that the oldest duties in kind of which we have any knowledge could be seen as personal tributes and gifts in a way that would be impossible later. The best example of the importance of personal relations is perhaps reflected in the duties (*regalia stipendia*, *servitium noctis*, *procuratio*, *apparatus*) which the medieval kings of Denmark received when they travelled the realm. Until the age of absolutism, royal government depended on the presence of the king and on his ceremonial journeys around the realm, a costly process.⁶

The landed possessions of thirteenth-century kings were not impressive, nor had they been substantial in the previous century. Admittedly, revenues from royal land could be quite considerable: for instance in 1231 the king received payments amounting to 500 silver marks from the newly conquered island of Fehmarn alone. Nonetheless, in general the royal lands were not vital sources of revenue. In the early thirteenth century, royal lands seem only to have constituted about five per cent of the total landmass or what would have corresponded to approxi-

⁴ A similar development from gift to duty seems to have taken place on Carolingian manors in the ninth century. Ludolph Kuchenbuch, *Bäuerliche Gesellschaft und Klosterherrschaft im 9. Jahrhundert. Studien zur Sozialstruktur der Familia der Abtei Prüm* (Wiesbaden, 1978), p. 118.

⁵ Rikke Malmros, “Kongemagt og leding i Norge og Danmark omkring 1100 belyst ud fra den tidlige kristne fyrstedigtning”, *HT* 105 (2005), 355–57; Tore Iversen, “Jordeie og jordleie. Eiendomsbegrepet i norske middelalderlover”, *Collegium Medievale. Tverfaglig tidsskrift for middelalderforskning/Interdisciplinary Journal of Medieval Research* 14 (2001), 79–114.

⁶ See Thomas Riis, “Det middelalderlige danske rejsekedømmme indtil 1332”, in *Middelalder, metode og medier. Festskrift til Niels Skyum-Nielsen*, eds. Karsten Fledelius, Niels Lund and Herluf Nielsen (Viborg, 1981), pp. 115–136.

mately 1500 average-sized peasant farms in the Late Middle Ages. In other words the king owned roughly the same amount of land as the wealthiest nobles and churchmen.⁷ The limited size of these royal possessions was partly the consequence of endowments to the Church by the kings of Denmark from the mid-eleventh century onwards. These donations were often generous, as in 1186 when Valdemar the Great gave Bishop Absalon nine manors in the area around Copenhagen.⁸ At no time do the royal lands appear to have been extensive, however, and their most important function before the Late Middle Ages was probably not to produce agricultural products but to act as centres for the collection of gifts and duties. From a very early time we apparently have the relics of such centres in the form of villages named Huseby/Husby, found primarily in Jutland.⁹ Around 1100, Ælnoth writes of bailiffs living in fortified royal manors, *curia regia*, *villa regia*.¹⁰ Sources dating from the eleventh and twelfth centuries also record people in the king's service who were termed *stallere* and *villici* but we should be careful not to imagine any kind of hierarchic bureaucracy.¹¹ *King Valdemar's Survey* (1231) generally describes these royal centres as manors, often with very little land attached. They were usually local centres forming part of an administrative system made up of relatively small districts (*herreder*).

In the thirteenth century Norwegian peasants insisted that *veitslene*, the provisions they brought to the king's hall as payment in kind, were free gifts which could not be fixed by law. In Denmark, however, such supplies were the result of negotiations with the local populace and

⁷ Carsten Porskrog Rasmussen, "Kronens gods", in *Danmark i senmiddelalderen*, eds. Per Ingesman and Jens Villiam Jensen (Århus 1994), pp. 69–87; Erik Ulsig, "Valdemar Sejrs kongemagt", in *Jydske Lov 750 år*, eds. Ole Fenger and Christian R. Jansen (Viborg, 1991), p. 67.

⁸ Karl-Erik Frandsen, "Hvad fik Absalon af kong Valdemar?", in *Absalon. Fædrelandets fader*, eds. Frank Birkebæk, Tom Christensen and Inge Skovgaard-Petersen (Roskilde, 1996), pp. 195–208.

⁹ Jerker Rosén, "Husaby", in *KLNM*, 7, col. 94–96; Anders Andrén, "Städer och kungamakt—en studie i Danmarks politiska geografi före 1230", *Scandia* 49, 1 (1983), 31–76. We know little of the function of the "*husebyer*" but in a charter dated 1233 the king still refers to "*nostris uillis que Huseby dicuntur*" in Jutland. The charter shows that at that time such villages belonged to both king and bishop and that they functioned as local centres, administering the law and collecting *leding*. *DD*, 1.6, no. 167.

¹⁰ Skyum-Nielsen, *Kvinde og Slave*, p. 39.

¹¹ Lars Hermanson, *Släkt, vännar och makt. En studie av elitens politiska kultur i 1100-talets Danmark* (Göteborg, 2000), pp. 61–79.

had become fixed over the years. *King Valdemar's Survey* contains lists of the provisions received by the king and his 400-strong retinue: these provisions comprised honey, grain, malt, meat, butter, cheese, fish, and coin, as well as enough oats to feed the horses during a two-night stay. There are also detailed lists of the provisions rendered to the king by individual Danish districts. The *stud*, a fixed levy in oats which we encounter in the thirteenth century and which literally means 'support or help', may be quite ancient and in its origin perhaps simply indicates some kind of general assistance to the king on his travels. As late as 1282 we find a royal assurance that peasants might pay the accustomed *stud* but that they should not be forced to give chickens to the king's table more than was the custom, although "they may be asked to give such things as free gifts".¹²

Around 1070 Adam of Bremen noted that the Vikings of Sealand paid tribute (*tributum*) to the king before leaving on raids.¹³ In the Danish towns there were fixed annual duties to be paid to the king that date back to the late eleventh century, and peripheral areas of the realm also paid cash tributes from an early time. This was the situation in the Friesian regions, for instance, from whence we can follow annual payments of money (*pecunia tributorum*) from the reign of King Niels (1104–34).¹⁴ Sources dating from around 1200 make it clear that these Friesian taxes, which were rendered variously as *stud*, *vennegave* (friendly gift), and royal tax (*census regis*), were crucial to the royal finances. There is evidence that the royal tribute or tax levied on the Baltic island of Bornholm, which was not integrated into the Danish realm until the second half of the eleventh century, was paid to the Archbishop of Lund well before 1123.¹⁵

While documentary evidence has allowed us some insight into the nature of specific early tributes, there is little source material to illuminate nationwide taxes before the mid-twelfth century, possibly because the king was rarely able to collect duties and levies outside

¹² *DDR* 1, 78.

¹³ Malmros, "Kongemagt og leding i Norge og Danmark", p. 350.

¹⁴ *DD*, 1.2, no. 35. Erik Ulsig, "Landboer og bryder, skat og landgilde. De danske fæstebønder og deres afgifter i det 12. og 13. århundrede", in *Middelalder, metode og medier. Festskrift til Niels Skyum-Nielsen*, eds. Karsten Flødelius, Niels Lund and Herluf Nielsen (Viborg, 1981), p. 164.

¹⁵ Skyum-Nielsen, *Kvinde og slave*, p. 45.

his own domains.¹⁶ The Chronicle of Roskilde, written in the 1130s, notes that during his reign (1080–86) King Cnut enacted a law which “forced the people to pay a tax which our people call *“nefgjald”*”.¹⁷ The chronicle claims that it was this measure that led to a rebellion and the subsequent assassination of the king. This suggestion, combined with St Cnut’s notoriously good contacts with Flanders and England, suggests that the king tried to impose a national tax similar to those known from abroad, in this case perhaps the English *danegeld*. It is also possible that the chronicle’s reference to *nefgjald* simply means a local town tax commonly levied in the 1130s.¹⁸ Apart from this unique and unsuccessful attempt, national taxes in kind do not appear to have been imposed in Denmark until a later date. Some of the taxes that were levied apparently originated in the payment of a fixed sum of money as commutation for a particular obligation. King Valdemar’s Law of Sealand shows that by the mid-twelfth century the levies known as *stud*, *inne* and *leding* were calculated according to the units in which Danish villages were measured, i.e. *bols* (corresponding to the English ‘hides’).¹⁹ Initially it was these levies, i.e. the duty to provide the king with provisions, labour, and military service, that were commuted. One of the preconditions of this commutation, of course, was that the king increasingly gained control over *leding*, i.e. military service.²⁰

The *stud* was probably the levy to be fixed first and it was the one that became most onerous. It seems to have brought the king about 8,000 silver marks in the early years of the thirteenth century.²¹ However, its importance was rivalled by duties arising from military service. In the mid-twelfth century we see the first examples of the king’s demands for *kversæde*.²² The background to this was the increasing enforcement of demands for military service, *leding*, which was replaced by a payment in the case of men who lived outside areas liable for conscription: *kversæde* literally means “sitting back”. The first record of a *leding* being paid for bowing out of a joint military expedition appears in a

¹⁶ Hybel, *Danmark i Europa*, pp. 200–201, 225–228.

¹⁷ *SM*, 1, p. 24, “*tributum, quod nostrates nefgjald nocal*”.

¹⁸ *Roskildekroniken*, ed. Michael H. Gelting (Højbjerg, 1979), p. 46.

¹⁹ Hoff, *Lov og landskab*, pp. 103–104.

²⁰ Niels Lund, *Lid, leding og landeværn* (Roskilde, 1996).

²¹ Ulsig, “Valdemar Sejrs kongemagt”, p. 67.

²² *DD*, 1.3, no. 191.

charter dated 1157–1164.²³ In this charter the king granted rights to a monastery “that they earlier have paid to our bailiffs on the occasion of that expedition, which in Danish is called *leyding*”. It is still open to doubt, though, whether this levy implies a duty paid to the man in charge of the military expedition, the *styresmand*, a fine for not carrying out military service, or a payment for military service that has been commuted by arrangement. However, by 1241 *leding* was apparently fully systematized and appears as a common tax in the Law of Jutland. This tax brought the king considerable revenues, although they were reduced as a result of the growing number of tax exemptions claimed by the nobility on behalf of their tenants. At the same time the work duty known as *inne* grew in importance, as many royal castles being built in the thirteenth century. *Leding*, *stud* and *inne* can be seen as the first ordinary (as opposed to extraordinary) taxes to be imposed on the population of Denmark.

In the thirteenth century the total revenues raised by the king from *stud*, *leding*, town taxes, and other sources, such as the mint, were probably quite substantial, as illustrated by the 25,000 silver marks which Valdemar II had to pay to in ransom for himself and his men in the years after 1223, a vast sum but one that was in line with ransom demands met by other contemporary princes elsewhere in Europe.²⁴

Levies paid to the king, the nobles, and the Church

In the thirteenth century royal finances relied partly on old forms of income, including revenues from the mint and the imposition of fines, and partly on taxes which now constituted a large proportion of the total revenue. Military commutation, *leding*, was an expression of social change as a result of which peasants were transformed from soldiers into taxpayers, while Danish society was left to be run by noblemen and clergy, who were exempt from taxation. Tax exemptions for the church appear in the late twelfth century, while at a point no later than 1241 noblemen (*herremænd*) and their *villici* were also generally exempt.²⁵ While the Law of Jutland stressed in 1241 that all tenants, *landboer*,

²³ *DD*, 1.2, no. 123.

²⁴ Venge, *Danmarks skatter i middelalderen indtil 1340*, p. 65.

²⁵ For example, *DD*, 1.3, no. 67, 89, 90, 118; *Jyske Lov*, III, 7–20; Venge, *Danmarks skatter i middelalderen indtil 1340*, p. 187.



Ill. 10. Two men bringing gifts to the church

should pay *leding* to the king, by about 1300 it is clear that they were no longer paying such duties.²⁶ We do not know the contractual basis of the yearly land rent which twelfth-century peasants paid to their lords. The earliest reference to such payments dates from 1123, and it is interesting to note that these dues were apparently always paid in money.²⁷ Around 1170 a farm is mentioned as paying typically “one mark of money in yearly rent”.²⁸ Not until the Law of Scania (c. 1220) and its contemporary Latin paraphrase appeared can a fully evolved contractual relation be documented. According to these laws the tenant (*landbo*) owned his house but paid rent on the land. The rent (*landgilde*) was payable in money and had to be rendered every year before 15 August while the tenancy lasted for only a year. This insecure but free

²⁶ Ulsig, “Landboer og bryder, skat og landgilde”, p. 149.

²⁷ Ulsig, “Landboer og bryder, skat og landgilde”, p. 156.

²⁸ *DD*, 1.3, no. 4.

form of tenancy, if actually put into practice, must have reflected the power of landowners during a period of demographic growth.²⁹ It also emerged at a time when the legal institution of tenancy was still new and landlords were only reluctantly allowing their tenants a degree of security. At the same time it is clearly an expression of the general trend in western Europe away from the leasing out of manors and the granting of free tenancies. The time of payment might vary and doubtless was often arranged to take advantage of profits arising from a harvest, as is shown in a survey of lands belonging to the Canons of Ribe (c. 1300).³⁰ This source shows that most tenant farms paid their rent annually on St Andrew's Day (30 November). One of these tenants was a man called Peter Skartsen, who lived in the small west coast village of Hjerting and whose annual rent in 1291 was recorded as half a mark in cash.³¹

Around 1070 Adam of Bremen still noted that "the population is not ready to pay a tenth".³² The Church was not firmly established in Denmark until the archdiocese of Lund was created in 1103/1104 but evidently permanent and fixed forms of payment were initiated shortly after. In 1135 the bishop's tenth is mentioned in Sealand, the first time it is recorded in Danish sources.³³ The custom in Denmark grew up whereby the tenth would be divided into three parts, one for the priest, one for the church, and one for the bishop. Nevertheless, in practice the whole sum could be retained by the religious foundations that levied it. In 1178 we see that the Augustinian monastery at Æbelholt kept the whole tithe paid by a particular village parish: the parishioners had donated this so that the bells of the abbey church could be recast and its walls repaired.³⁴

It was not easy to enforce payment of the third part of the tithe that was the bishop's due. For a long time bishops were paid a lower sum in commutation of this levy than a genuine tenth would have given them. Until 1171 the people of Sealand were required to pay a levy in cash, termed "the bishop's gift" (*biskopsgave*), which comprised only about a

²⁹ Nils Hybel, "The Creation of Large Scale Production in Denmark", *Scandinavian Journal of History* 4, (1995), 259–280.

³⁰ *Samling af Adkomster, Indtægtsangivelser og kirkelige Vedtægter for Ribe Domkapitel og Bispestil, kaldet Ribe Oldemoder*, ed. Oluf Nielsen (Copenhagen, 1869).

³¹ *RO*, p. 72.

³² *AB*, p. 264.

³³ *DD*, 1.2, no. 64.

³⁴ *DD*, 1.3, no. 78.

third of the levy in grain that they were subsequently forced to pay. The bishop's full tithe was introduced in Sealand in 1171 alongside similar levies in the diocese of Lund, while Schleswig followed suit a few years later.³⁵ In 1180–2 a rebellion in Scania partly against this tax testifies to the resistance of the populace. Given the “gift” associations of the original levies it can perhaps also be seen as a protest against a transition from a ‘gift economy’ to a more sophisticated ‘demand economy’. It is significant that it was not until about 1530 that the more modest taxes paid to the bishop and termed “gifts” (*biskopsgaver*) could be replaced by a full bishop's tithe: this happened in the dioceses of Funen and northern Jutland. Other duties were soon added, such as “Peter's Pence” and crusade tithes, and these supplementary taxes might well inspired the development of more sophisticated forms of taxation.³⁶ Not much is known of the early history of Peter's Pence but the principle it enshrined was that each household should pay one *penning* to the pope. As early as the eleventh century it is mentioned in Denmark as a “*census*” but we do not have any certain documentation of it before the thirteenth century and until its demise in the 1330s.³⁷

Archaeologists have recently uncovered striking proof of the size of the duties rendered to Danish bishops in the High Middle Ages. They have found the Bishop of Ribe's residence at Lustrup, near the town of Ribe. From the written sources that survive we know that in the thirteenth century the bishop collected taxes here on behalf of the king. These taxes included a commutation of military service (*leding*), and the obligation to provide support for the king on his travels (*stud*), as well as “gifts” rendered to the bishop (*biskopsgaver*), and doubtless it was these substantial levies, paid in kind, that created a need for the huge building, 54 metres long and 5–6 metres wide, revealed by archaeological research. This impressive edifice must have been the barn where the income of the bishop was stored.³⁸

By the year 1200, high-ranking churchmen and powerful nobles were demanding more levies than ever before. In the thirteenth century a

³⁵ *DD*, 1.3, no. 146.

³⁶ Kurt Villads Jensen, “Korstogstanken i dansk senmiddelalder”, in *Danmark og Europa i senmiddelalderen*, eds. Per Ingesman and Jens Villiam Jensen (Aarhus, 2000), pp. 39–63.

³⁷ Ellen Jørgensen, *Fremmed indflydelse under den danske Kirkes tidligste Udvikling* (Copenhagen, 1908), pp. 173–176; Herluf Nielsen, “Peterspenge”, in *KLNM*, 13, col. 249–252.

³⁸ Ethelberg et al., *Det Sønderjyske*, p. 417.

relatively new situation developed whereby all peasants paid up to ten per cent of their production to the church as well as rendering *stud* and *leding* (or *kørsæde*) to the king or his representative, while tenants (*landboer*) also paid their landlords a rent in money (*landgilde* or *skyld*). In fact the levies these tenants paid to the king were as high as the rent they paid to their landlords and it was this rent, at least in eastern Denmark, that was used to assess their tax. In other words, taxes and land rent were roughly the same amount. In 1290 we see that 20 tenants in the village of Ramløse were paying 10 marks in rent together with 7 marks in military tax (*leding*), to which the tithe was then added.³⁹

As noted above, it was no later than 1241 that the larger farms run by *bryder* (Latin: *villici*) were exempted from tax, while around 1300 this exemption was extended to tenant farmers (*landboer*). Everything indicates that it was this very tax exemption that paved the way for the exceptionally high rents paid by tenants around 1300. From surviving sources it can be estimated that their rent (*landgilde*) was at least twice as high around 1300 as it was from the mid-fourteenth century onwards.⁴⁰ The tide turned, however. In a number of villages around Århus the rent, by now paid in grain, fell by more than two thirds during the fourteenth century.⁴¹ Whereas in 1315 there were several tenant farmers who paid the Canons of Århus a rent equal to the total cost of seed they needed on their farms, by 1427 the same men rarely gave more than a third of the value of their seed.⁴² It is tempting to conclude that the buoyant demographic state of the country around 1300, which saw large numbers of peasants hoping to acquire their own farms, must have made it possible for landowners to combine traditional tenant levies with uncollected royal ones and then also extort high rents from the peasants. The above-mentioned peasants at Ramløse worked for the Bishop of Roskilde and the seven marks they paid in military tax (*leding*) in 1290 must have gone to the bishop and not the king. In itself it is not important if the reason was that the bishop had taken over the king's military tax unit (*skiben*), or if it was his status as a landlord that entitled him to receive the former royal duties. Much evidence suggests

³⁹ DMR, 3. ser, 1, 75.

⁴⁰ C. A. Christensen, "Nedgangen i landgilden i det 14. Århundrede", *HT*, series 10, 1 (1931), 446–65; Erik Ulsig, "Befolkningsfald, landgildefald og jordpriser i det 14. århundrede", *HT* 101, 2001, 1–16.

⁴¹ Ulsig, "Befolkningsfald, landgildefald", p. 5.

⁴² Erik Ulsig, *Århusundersøgelsen—under Det nordiske Odegårdsprojekt* (Århus, 2004), p. 97.

that such processes accelerated on a grand scale during the violent years 1250–1350, with freeholders (Danish: *selvejere*, Latin: *bundones proprias terras habentes*) seeking positions as tenants of their local lords. The castles recently built by these lords gave farmers the protection (*værn*) they needed. Recent research indicates that freeholders must have been quite numerous in some parts of the country before this age of transition. There were some regions, particularly in Jutland, where nearly all peasants were freeholders. On a national level, however, the proportion of freeholders in the Late Middle Ages had fallen to 15 per cent of the total.⁴³ The period c. 1320–40, during which the country was without effective royal power, is especially important in this connection.

Extraordinary taxes and falling land rents

A new and vigorously enforced attempt on the part of the Danish king to collect revenues is represented by the plough taxes, introduced in Jutland from 1231 and soon to spread throughout Sealand and Funen.⁴⁴ How systematically these plough taxes were assessed is shown by surveys (*plovtaleslisten*) covering rural Sealand and Lolland-Falster, as well as towns in the same regions (*købstadslisten*): these lists were drawn up c. 1240 by the royal administration.⁴⁵ After a rebellion by the peasants of Scania in 1249 this region was also forced by King Erik to pay plough tax, resulting in his telling surname: “Plough Penny” (*Plovpenning*).⁴⁶ The tax was levied according to an assessment of the “ploughs of land” cultivated by farmers and was originally paid by all peasants as well as by secular and ecclesiastical landlords.⁴⁷ The tariff for this tax, according to a law

⁴³ Anders Bøgh, “Bundones regis. Selvejerbøndernes antal og funktioner, især i senmiddelalderen”, in *Konge, kirke og samfund. De to øvrighedsmagter i dansk senmiddelalder*, eds. Agnes Arnórsdóttir, Per Ingesman and Bjørn Poulsen (Århus, 2006), pp. 117–150.

⁴⁴ Sture Bolin, “Skattpenning och plogpenning i medeltidens Danmark”, in *Nordiska historikermötet i Göteborg*, ed. Curt Weibull et al. (Lund, 1952), pp. 47–65; Kirsten Bendixen, “Mønternes funktion i Danmark i perioden c. 1075–1300”, *Fortid og Nutid* 27 (1977–78), 4–20; Keld Grønder-Hansen, *Kongemagtens krise. Det danske møntvæsen 1241–1340* (Copenhagen, 2000), pp. 64–67.

⁴⁵ *KVJ*, pp. 82–83; Ulsig and Sørensen, “Studier i Konge Valdemars Jordebog”, 1–26; Venge, *Danmarks skatter i middelalderen indtil 1340*, pp. 195–203.

⁴⁶ *DMA*, p. 64. “et rex Ericus compulit totam Daciam ad denarios redarios siue aratrales”.

⁴⁷ *DD*, 1.6, no. 204, “nulli exempti sunt set sicut laici ita et clerici et omnes claustrales ad illorum denariorum solutionem sunt obligati”.

dated 1251, was 30 *penninge* per plough but it seems that originally 240 *penninge* (i.e. one mark) per plough had been levied.⁴⁸

The imposition of the plough tax may be interpreted a result of the huge sums paid by the realm to ransom Valdemar II and his son, captured in 1223.⁴⁹ Its official justification, however, was that the king needed to be compensated for not reminting and demonetizing the previous coinage, in other words for stopping the burdensome *renovatio monetæ*. The inspiration for this rock-solid tax, which paid for the institution of a stable monetary system ("*statigh mynt*", as it is called in a royal ordinance dated 1251) could have come from several places.⁵⁰ Similar taxes to finance the preservation of a fixed coinage (*conservatio monetæ*) were imposed in twelfth-century France, while the concept of a plough tax might well have come from the plough tax introduced into England by Richard the Lion Heart in 1198 or from the imperial plough tax which Philip of Schwabia imposed in 1207.⁵¹

The plough tax was presumably introduced as a levy to be paid in place of a renewal of the coinage, the *renovatio monetæ*, previously a crucial form of revenue for the king. Later, however, this connection lapsed. In 1257 the king again began his yearly re-issuing and revaluing of the coinage and from 1311 or before, plough taxes were levied simultaneously with the *renovatio monetæ*.⁵² From this point onwards plough taxes were imposed on virtually an annual basis. We know of taxes levied in the years 1311, 1313, 1316, 1318, 1319.⁵³ A coronation charter dated 1320 promised that the king would not levy any plough taxes but in 1325 at the latest they were collected again.⁵⁴ The plough tax of 1313 was imposed on rebellious peasants in parts of Jutland, and the payment was three or four marks per plough. This was about the same level as other plough taxes of the period. Nevertheless, we hear of payments equivalent to half a mark or a whole silver mark per

⁴⁸ *DDR*, 1, 44, 46 (§ 5, § 16).

⁴⁹ Hybel, *Danmark i Europa*, p. 226.

⁵⁰ *DDR*, 1, 47 (§ 5) "*scal gialdes en oræ penning for statigh mynt*".

⁵¹ T. N. Bisson, *Conservation of Coinage. Monetary Exploitation and its Restraints in France, Catalonia and Aragon, c. 1000–c. 1225* (Oxford, 1979); Venge, *Danmarks skatter i middelalderen indtil 1340*, p. 197.

⁵² Grønder-Hansen, *Køngemagtens krise*, p. 67; *DD*, 2.6, no. 338.

⁵³ *DD*, 2.6, no. 338.

⁵⁴ *DDR*, 1, 25 (§ 25), 190 (§ 31) "*Item omnia et singula grauamina nouiter imposita amodo non petantur, uidelicet plogpæningh, gulkorn, thelonea aut alia quecumque post mortem regis Woldemari imposita et inuenta*".

plough.⁵⁵ A very different type of tax was demanded in 1317, when a tenth of all income was demanded from peasants, churchmen, and noblemen alike.⁵⁶

Gradually, the names of what we might term extraordinary taxes (that is in practice all taxes except the thirteenth-century *leding*, *stud* and *inne*) were changed to *bede*, Latin *petitio*, a name that stresses the point that the king was now forced to ask publicly for this tax to be rendered to him.⁵⁷ These extraordinary taxes were crucial to public finances by the fourteenth century and considerable force had to be used to force them through. In 1328, when Count Gerhard of Holstein rather than the king was the real ruler of Sealand, a rebellion broke out among the peasants when he attempted to levy "a small tax".⁵⁸ Nonetheless, powerful rulers could exploit taxation to the full. In 1333, Magnus, King of Sweden, collected extraordinary taxes in Scania to the value of 10,000 silver marks. In 1349 King Valdemar of Denmark stated that the extraordinary taxes he had been paid in Sealand in the preceding 8½ years totalled 30,000 silver marks (i.e. 3,500 silver marks per annum).⁵⁹ We do not know the revenue of taxes imposed in 1352 and 1355 (six *gros tournois* to be paid on every cow), but an extraordinary tax which Queen Margrethe I collected in 1396 probably amounted to more than 50,000 Lübeck marks in all. This tax was levied in Jutland and every farm regardless of size had to pay according to a tariff of 12 *gros tournois*, but in other parts of the realm it was assessed by parishes, with inhabitants required to pay 10 silver marks collectively. This differing practice probably mirrors the existence of large parishes of isolated farms in Jutland as opposed to the normal pattern of settlement elsewhere, with villages huddled closely together.⁶⁰

The increasing number of extraordinary taxes collected in the fourteenth century must reflect the dwindling tax base that characterized the thirteenth century. As noted above, peasants renting from a landlord around 1300 were exempt from taxes and for this reason many free-

⁵⁵ *DD*, 2.7, no. 89.

⁵⁶ *DMA*, p. 118. "*decimas omnium reddituum suorum*".

⁵⁷ *DD*, 2.4, no. 231; *DD*, 2.10, no. 288.

⁵⁸ *DMA*, p. 121.

⁵⁹ Ole Brandenborg, "Skånemarkedets betydning for kongemagtens finanser i den senere middelalder", in: *Kongemagt og samfund i middelalderen. Festskrift til Erik Ulsig på 60-års dagen*, eds. Poul Enemark, Per Ingeman and Jens Villiam Jensen (Århus, 1988), p. 158; *DMA*, p. 125.

⁶⁰ *DDR*, 1, pp. 338, 343.

holders gave up landownership in the thirteenth century and the first half of the fourteenth century. In principle extraordinary taxes could be collected from the whole population and thus compensate the king for any other loss of income. At the same time the older division of the kingdom into *herreder* was no longer appropriate as a number of large royal castles were built and these units were now amalgamated into larger districts (*len*) with a castle at the centre. This process had already started in the thirteenth century but accelerated rapidly in the fourteenth century. A new administrative and fiscal system was created, with royal castles dominating large surrounding rural areas. It was the continued and indeed strengthened role of these royal domains that led to a distinct financial structure in Denmark which lasted until the advent of absolutism in 1660. The castles could generally be maintained on the basis of traditional levies paid by freeholders and also by royal tenants but if the king needed larger amounts of cash it was necessary to impose extraordinary taxes. A widespread practice of pledging castles to noble creditors made it even more essential to collect such extraordinary taxes. The taxes were often the precondition for the king to regain his own castles and thus maintain power in the country.

The drop in land rent (*landgilde*) that took place after *c.* 1350 must have come as a serious challenge to the Danish elite. The *landgilde* also changed character, as money rents became relatively rare, and the normal form of payment was now in grain, supplemented at times by half a pig, a goose, a couple of hens, 60 eels or a wagonload of wood.⁶¹ Most important, however, was a drop in the amount of rent that had to be paid. Rents in Denmark appear to have fallen in the period 1360–70.⁶² From that point until some time in the fifteenth century, *landgilde* was gradually reduced. The speed with which this happened varied from one region to another but in time the duty was generally reduced by about 50 per cent.⁶³ This reduction most probably reflected the strong bargaining position of Danish peasants after the Black Death. Nevertheless, it is surprising to see that the main form of rent, *landgilde*, remained unchanged for centuries. Landlords were never

⁶¹ The change to rents in kind is best explained by the breakdown of the monetary system in the fourteenth century. See Svend Gissel, "Payments in Money and in Kind in Late Medieval Scandinavia. Studies in Agrarian Rents", *Nordisk Numismatisk Årsskrift* 1981, 48–57.

⁶² Ulsig, "Befolkningsfald, landgildefald", pp. 1–16.

⁶³ Ulsig, *Danske Adelsgodser*, pp. 340–341.

able to recover these or other compensatory levies from the peasants without a great deal of trouble.

In 1490 we hear that the king's officer (*lensmand*) at Rendsburg ordered all peasants in the area of Kampen to pay a service duty of 20 *skill-ing*, presumably in commutation of work duties.⁶⁴ Other new levies introduced in the fifteenth century were money payments in place of forced participation in hunts (as beaters, for instance) or as a charge for access to woodland or meadows. Most heavy of all these duties, however, was the commutation of the right to "hospitality" (*gæsteri*). This payment replaced the right of the king or landlord to visit farms and obtain provisions from them and it was first introduced on a large scale around 1500. The commutation of this duty can sometimes be dated exactly, as at Sønder Gos, a *herred* in Schleswig, where the duty to house the king and his officers for three days was commuted to a money rent in 1511.⁶⁵ The lightly taxed freeholders seem to have been particularly hard hit by *gæsteri*, which would in time become their heaviest burden. In 1537 for instance, a freeholder named Mats Poulsen, living in the village of Endrup near present-day Esbjerg, paid the large sum of eight marks in *gæsteri* to his lord the king, besides nine *penninge* for *leding*, a quantity of oats for *stud*, half a barrel of butter, and a pig. By now, many of the freeholders living in this region of west Jutland were paying up to 10–12 marks per annum in *gæsteri*.⁶⁶ The duty paid on taking over a tenant farm (*stedsmål*) also increased in the late fifteenth century and throughout the sixteenth century, and at the same time landlords in many places began to demand that peasants fatten young cattle for them or even, during the sixteenth century, feed their oxen. Nevertheless, these developments can hardly have weighed heavily on the peasants, or at least would not do so until well into the sixteenth century.

It is undeniable that the many extraordinary taxes levied by the king in the late fourteenth century and throughout the fifteenth century were sorely needed. Through these levies the nobility and clergy, or at least those of them who gained a share of the royal castles and their surrounding *len*, had the means to generate incomes to compensate for the dwindling of land rents. Furthermore, the bishops also levied their

⁶⁴ Ethelberg et al., *Det Sønderjyske*, p. 618.

⁶⁵ *Rep.*, 2. ser., 11007.

⁶⁶ Poulsen, "Middelalder", p. 182.

own extraordinary taxes when cash was needed, although these were mostly paid by the clergy in their dioceses. For instance, we see that in 1424 the Archbishop of Lund demanded an extraordinary tax from his parish priests in order to redeem a pledged *len*; and in 1498 another archbishop demanded an “aid” from both the clergy and the laity in his diocese in order to pay a fine on the pope’s election to office.⁶⁷ The right of a bishop to claim tallage from his peasants is mentioned for the first time in 1340, and in 1509 we find that the Bishop of Roskilde was demanding considerable taxes in kind from his peasants when he too took office.⁶⁸

To the peasants, however, conditions in the first half of the fifteenth century must have appeared relatively favourable, especially as the number of extraordinary royal taxes decreased. It seems that the creation of the Calmar Union in 1397, whereby Norway and Sweden effectively came under Danish rule, led to a relative reduction in taxation throughout Denmark. The Swedes were apparently justified when they claimed in 1434 that during their rebellion against the Danish regime money and goods had been taken out of their country and transported to the royal court of Denmark. Until well into the sixteenth century the combined rent and tax paid by Danish peasants cannot have been very high in relation to their production.

Royal Revenues in the Late Middle Ages

From the second half of the fifteenth century and into the sixteenth century the Danish kingdom saw a significant enlargement of its bureaucracy, while mercenaries were also employed more frequently by the crown. Taxes played a crucial role in these developments.

From the mid-fifteenth century onwards, extraordinary taxes (*beder*) were levied virtually every other year for a variety of reasons. In 1446–47, for instance, King Christoffer imposed taxes to pay for his wedding; in 1478 they were to finance the wedding of the son of Christian I; in 1515 it was Christian II’s who was to be wed; but more often than

⁶⁷ Ingesman, *Ærkesædets godsadministration*, pp. 188, 264.

⁶⁸ Anders Bøgh, “Feudalisering og bondekommunalisme. Noget om samfundet i senmiddelalderen”, in *Danmark i senmiddelalderen*, eds. Per Ingesman and Jens Villiam Jensen (Aarhus, 1994), p. 98; Dahlerup, *Politikens og Gyldeandals Danmarkshistorie*, pp. 293–294.

not the reason for taxation was war with Sweden.⁶⁹ Sometimes, as in 1446–7, the tax was collected from individuals paying a fixed amount each, but collective taxes levied from small groups of people became more common. These taxes were variable: in 1458, groups of four men paid a total of three marks; in 1460 the tariff for four men was five marks; in 1464 and 1467 four men paid four marks; in 1473 four men paid two marks. In such cases it was the principle that within the tax group “every man should contribute to the royal levy according to his property”.⁷⁰ Only rarely, as in the case of Frederik I’s huge tax in 1524, do we know the financial target the king was hoping to achieve. This latter tax was intended to net 100,000 *gylden* for the king and was raised on the basis of 1½ marks from every peasant in Denmark, as well as from other members of the laity and the clergy.⁷¹

Records of a royal central government survive from the reign of Christian II (1513–23), so we can form some impression of the various types of revenue, including extraordinary taxes, which came into its hands. The figures are shown above in Table 12.

As the figures show, the queen’s wedding tax of 1515 contributed considerably to the royal revenues but they also reveal that the war

Table 12 Royal revenues in Danish marks, 1513–1523

Year	1513	1514	1515	1516	1517	1518	1519
Extraordinary taxes	118	2190	16108	6108	58466	63632	2893
Other revenues	15863	17330	20555	9669	19846	20328	11241
Total	15981	19520	36835	15777	78312	83960	14134
Year	1520	1521	1522	1523			
Extraordinary taxes	69517	18960	38382	1500			
Other revenues	16365	5765	1849	480			
Total	85882	24725	40231	1980			

Source: SS, 1 ser., 1–2. ser

⁶⁹ *Rep.* 1. ser, 7666; *Rep.*, 2 ser., 711.

⁷⁰ *Rep.*, 2. ser., 4216.

⁷¹ Mikael Venge, *Danmarks skatter i middelalderen 1340–1536* (Copenhagen, 2004), p. 354.

Table 13 The revenues of the crown “in the reign of King Hans” (1481–1513). Estimate in Danish marks, c. 1524 (Source: DM, 3rd ser., 1, pp. 136–138)

<i>Revenues</i>	<i>Danish marks</i>
Royal domains (fixed rents)	20,000
Royal domains (yearly account)	6,000–8,000
Royal assize	10,000–12,000
Town taxes	6,500
Town fines and taxes on goods	c. 13,000
Scania market	5,000–6,000
Sound dues (c. 2,000–3,000 rose nobles)	10,000–15,000
Total	70,500–80,500

taxes of 1517, 1518, 1520 and 1521 were more important. The years in which extraordinary taxes were demanded clearly show a huge increase. The tax for 1520 apparently brought the king about 70,000 marks. A surviving account from the first years of Frederik I's reign, 1523–24, registers higher revenues generally. Here the total income is calculated at 150,000 marks, of which an extraordinary tax constituted a mere 30,000 marks, although admittedly this was not typical.⁷²

It is difficult to estimate the total royal income at this time. However, a survey of royal revenues drawn up “in the time of King Hans” (1481–1513) has survived, giving us some idea of the income structure as a whole.⁷³ It was compiled by Frederik I's administration around 1524 in an attempt to estimate its financial strength, and the figures are doubtless exaggerated. However, the one item that can be checked, i.e. the income from Sound Dues, is reasonably accurate (Table 13).

The survey is significant for what it reveals as well as for what it omits. Revenues from the royal domains, the *len*, (of which the old “ordinary taxes” of the thirteenth century by now constituted a tiny percentage) made up more than a third of the total. Towns contributed somewhat less, while the revenues from the Scania market and the Sound dues together amounted to about a quarter of the total. At this point the tolls paid by ships passing through the Sound, a payment introduced in 1426, surpassed the revenues of the earlier and all-important her-

⁷² Venge, *Danmarks skatter i middelalderen 1340–1536*, pp. 345–350.

⁷³ DM, 3. ser., 1, 136–138; See H. Knudsen, “Cantsler Claus Giordsens Optegnelser, især om de danske og norske Lehn paa Kong Frederik den Førstes Tid”, *Nye Danske Magazin* 6 (1836), pp. 289 ff.

ring markets of Scania. A last, but not unimportant, element was the income derived from the royal assize, *kongelige retterting*. In other words, and indeed characteristically, it is only revenues from royal domains and royal prerogatives that are listed. The survey reflects the ideology that the king should live off his “rents”—extraordinary taxes were not yet included in an average budget. On the other hand, these figures are far larger than the amounts that actually reached the central royal coffers, at least according to the records kept by the administration in 1513–23. What we see is a gross account registering all ordinary revenues, but what really mattered were the extraordinary taxes. Only by collecting such taxes could the king manage his household and generate money to hire the increasingly important mercenaries. Only with the help of such taxes could he try to unify the extensive Nordic Union of which he was from time to time the head, and at the same time attempt to meet challenges from other European rulers. Fundamentally, however, it should be stressed that from the end of the Middle Ages until 1660 the Crown relied on a domain economy rather than a tax economy. Only later can it be said that the combined effect of rising taxes and the large-scale sale of royal domains resulted in a full blown tax state.⁷⁴

The Dominance of a Domain Economy

As we have seen, the local administration of thirteenth-century Denmark was based on districts known as *herreder*. There were 166 of these if we include the island of Gotland. The Law of Jutland (1241) mentions an *ombudsmand* who seems to be the local royal official in these *herreder*. There was a tendency for more and more *herreder* to be merged into larger administrative units. Initially, these were termed *fogedier* but soon acquired the name of *len*, and their official was called the *lensmand*. The possession of such an office became one of the principal roads to power and wealth in late medieval and early modern Denmark.

Even at a relatively early date, certain administrative districts appear to have comprised a considerable number of *herreder*. *King Valdemar's*

⁷⁴ Erling Ladewig Petersen, “From domain state to tax state: synthesis and interpretation”, *Scandinavian Economic History Review* 23 (1975), 116–148; Bjørn Poulsen, “Kingdoms on the Periphery of Europe: The Case of Medieval and Early Modern Scandinavia”, in *Economic Systems and State Finance*, ed. Richard Bonney (Oxford, 1995), pp. 101–122. On the concepts of domain state and tax state, see J. A. Schumpeter, “The crisis of the tax state”, *International Economic Papers*, 4 (New York, 1954), 5–38.

Survey (1231) records that the two Funen *herreder*, Åsum and Lunde, along with the town of Odense, were termed *ombud*, i.e. governed by one man. One of the factors that promoted this enlargement of the administrative areas was as noted above an increase in the number of royal castles being built. It is symptomatic that *King Valdemar's Survey* lists the castle of Nyborg, built late in the twelfth century to guard the passage across the Great Belt, alongside two subordinated *herreder*, Vindinge and Gudme. This was the same district which, along with the castle of Nyborg, appears as Nyborg *len* in later sources. During the thirteenth and fourteenth centuries, Denmark had numerous royal castles supported by such *len*. After 1313, when King Erik Menved built a number of castles as a response to a rebellion in Jutland, they were all required to have *herreder* assigned to them.⁷⁵ For example, the large castle of Kalø outside Aarhus, built in 1314, was given five *herreder*.⁷⁶ It became a fundamental rule that *len* which possessed castles must have additional *herreder* attached to them: in the fourteenth century this often meant many *herreder*. In 1340 we hear that the large castle of Aalborg was the centre of a *len* consisting of an astonishing 20 *herreder*.⁷⁷ In the fifteenth century several *len* had four *herreder*, Kalø had five, while Aalborg and Helsingborg in Scania had eight and nine of these districts respectively.⁷⁸ Obviously, it took considerable resources to build and maintain a castle and garrison, and required a territorial basis of several *herreder*.

The other factor contributing to the necessity to increase revenues per administrative unit was the diminishing number of freeholders and the devaluation of their payments in the fourteenth century as consequence of the decreasing money value of these payments, a trend which continued into the fifteenth century. Larger territories were now needed in order to raise sufficient revenue from the peasants. The newly created network of castles built in the thirteenth and early fourteenth centuries could certainly not exist on the limited income derived from royal lands. Extraordinary taxes, imposed almost automatically in the fourteenth century, partly solved this problem. Otherwise, the shortfall

⁷⁵ Anne Nissen Jaubert, "Han byggede borge", *Skalk* (1987:3), 18–27. The royal castle at Stege on the island of Møn was completely rebuilt in 1314. Thomas Finderup and Henriette Rensbo, "Træværket fra Stege Borg. Håndværk, teknologi og ressourcer i 1314", *Kuml. Årbog for Jysk Arkæologisk Selskab* 2005, 225–267.

⁷⁶ Henrik Lerdam, *Danske len og lensmænd 1370–1443* (Copenhagen, 1996), p. 66.

⁷⁷ *DD*, 3.1, no. 36.

⁷⁸ Harry Christensen, *Len og magt i Danmark 1439–1481* (Aarhus, 1983), p. 16.

was overcome by an expansion of royal lands: these grew from c. five per cent of the total land in the country around 1231 to between 10 and 12 per cent in the Late Middle Ages. The second half of the fourteenth century, in particular the period covering the reigns of King Valdemar Atterdag and Queen Margrethe, was particularly significant in this respect.⁷⁹

The late medieval *len*, as we know them, rested on a fusion of royal rights and manorial functions. While it is correct to use the term domains, we should be clear about what this implies. The *lensmand* was a royal official with more or less pronounced duties in relation to the king. He was required to supply men and ships in time of peace and war. First and foremost, however, he was imbued with extensive royal power within his own locality. He had to maintain law and order throughout the entire *len* and by the Late Middle Ages was responsible for royal justice administered by local men, the so-called *herredsfogeder*, who were his representatives in the individual *herreder*.⁸⁰

The *lensmand* was in charge of the local collection of extraordinary taxes paid by everyone, including peasants working for the nobility and the clergy. His jurisdiction allowed him to collect fines from the peasants within his *len*, while concurrently demanding from the freeholders the old thirteenth-century taxes known as *stud*, *inne*, and *leding*, under which names they still appear in the sources as late as the fifteenth century. As estate manager he administered crown lands, collected rents from crown tenants, and controlled the local forests. The centre of the *len*, the castle, also had to be kept in repair, while the royal farm attached to the castle, often quite large, had to be managed and run by paid labourers and boon work.⁸¹

There are various late medieval sources that provide information about the way in which these *len* were run. By the Late Middle Ages there were about 40 royal castles in existence, each with an attached *len*. In addition, there were smaller areas consisting of a few farms which were given for life to the king's followers and which were also termed *len*. However, it is clear that it was the former, i.e. royal castles with their associated *len*, which provided the basis for the royal finances. It

⁷⁹ Carsten Porskrog Rasmussen, "Kronens gods", in *Danmark i senmiddelalderen*, eds. Per Ingesman and Jens Villiam Jensen (Aarhus, 1994), pp. 69–87.

⁸⁰ Henrik Lerdam, *Kongen og tinget. Det senmiddelalderlige retsvæsen 1340–1448* (Copenhagen, 2001), pp. 235–239.

⁸¹ Christensen, *Len og magt i Danmark*, pp. 19–24.

is important to stress again, however, that the revenue from domain in Table 2 should be read as a record of local income, and not necessarily as the revenue paid to the central administration.

The surviving surveys of revenues from Danish *len* are difficult to analyse, as they are in no way consistent or complete. The best in this respect is a survey of the revenues of the Schleswig *len* from 1490. In the duchy at that time there were nine *len* with their associated castles: these *len* paid the king a total of 11,812 marks, half in money and half in kind. The relationship between levies in cash and levies in kind were very different from *len* to *len*, ranging from 87 per cent in cash in a western *len* to 13 per cent in cash in the eastern part of the country. These were not revenues that the king could benefit from, however. If we examine the individual accounts surviving from the Schleswig *len*, it is clear that their surplus was minimal in relation to their income. The large Gottorp *len* even had a deficit according to the figures for 1490, while another large *len*, Flensburg, had very little surplus in 1487. Apparently, the principal functions of the Schleswig *len* were defence of the royal castles and the provision of lodgings for the king. Much of revenue was clearly used to feed and lodge the king and his retinue during their visits, with roast venison, wine, and spices replacing the usual garrison fare.⁸²

If we look at other accounts from *len* situated throughout Denmark we see that the picture is the same. The records kept at Næsbyhoved *len* survive for the years 1502–1511. This *len* is mentioned for the first time in 1337, but it was created earlier from a group of *herreder* around Odense and is shown as such in *King Valdemar's Survey* (1231). Around 1500 the *len* formed part of Queen Christine's lands, which she held in pledge for her husband: it was managed by a paid *lensmand*, who rendered his accounts to the queen once a year.⁸³

According to these records, Næsbyhoved *len* consisted of five Funen *herreder*: Odense, Lunde, Skam, Bjerger, and Åsum. The hub of the *len* was the large castle of Næsbyhoved, which stood on an elevated mound 60 metres long and 60 metres broad. There was also a farm attached to the castle. This farm was run by a bailiff, who was paid eight marks per annum. In 1509, there were 23 cows, 22 calves, 16 plough oxen, and 21 other oxen. There were also 122 sheep, 30 lambs, 10 geese, 127

⁸² Bjørn Poulsen, "Slesvig før delingen i 1490. Et bidrag til senmiddelalderens finansforvaltning", *HT* 90 (1990), pp. 38–63.

⁸³ Leth, *På vor nådige frues vegne*.

pigs, and two boars. The fields were large enough for 200–300 barrels of grain to be sown. The accounts for 1509 and 1511 show that a very large number of the peasants in this *len* were there as boon workers. In the accounts for 1509 we can also see that harvesters and other people doing boon work in “compensation” were fed, to the order of 52 half pigs and 46 barrels of beer.⁸⁴ Near the castle stood a large mill run by a miller who paid a yearly rent.

The accounts show that the peasants in this *len* numbered around 260. About half of them were freeholders and the other half tenants. The freeholders can be identified because they were paying the old money duties or taxes dating back to the thirteenth century and which were termed here *inne* or summer and winter dues. Peasant farms paying duties to the *len* comprised only about 14 per cent of all the farms in the district covered by the *lensmand*, as in his district there were also a large number of farms owned by noblemen and clergy.⁸⁵ From the accounts of the *len* it is clear that both its freeholders and tenants paid yearly duties as their primary obligation. These consisted of grain, possibly some cash, cattle, and perhaps also coal, wood or hops. Furthermore, the peasants paid the commutation tax known as *gæsteri*. In Næsbyhoved *len*, as in so many other parts of Denmark around 1500, the right of the *lensmand* and his men to visit or even reside in peasant dwellings had been commuted to a fixed rent in money. For permission to let their pigs forage in the woods belonging to the *len*, the peasants paid duties in either pigs or cash. They were also obliged to pay for access to the woods to fetch building timber or firewood, similarly for permission to cut reeds and to cultivate land deserted as a result of the late medieval drop in population. Finally, the peasants paid a duty on taking over new farms or on leaving their old ones.

In sum, it appears that the most important function of Næsbyhoved *len* was that it supplied provisions. The money actually transferred from the *len* to the queen was minimal. Admittedly part of the surplus cash collected was passed on to merchants in Odense and Lübeck but most of the money generated was used in the administration of the *len*.

The finances at Næsbyhoved provide a fine illustration of the fundamental principles of princely economy in the late medieval period. It is clear that the local administration of royal castles was so expensive

⁸⁴ *Næsbyhoved lens regnskaber*, pp. 9–11.

⁸⁵ *Næsbyhoved lens regnskaber*, p. 13.

that it consumed most of the revenues it collected. Royal and princely power rested on supplies from the *len* and only as exceptions (albeit frequent ones) were the revenues of the *len* supplemented by extraordinary taxes. As already noted, it was not until the seventeenth century that Denmark took the final step and became a tax state. Thus in the medieval period the realm relied more on transactions in kind than other countries, such as England and France, where common taxes constituted the fiscal basis of the realm as early as 1300.

The medieval peasant and his dues

In principle the payment of church dues remained unaltered throughout the medieval period and into the sixteenth century, until the king took over the bishops' tithe after the Reformation of 1536. However, other duties paid by rural dwellers changed dramatically.

In the thirteenth and early fourteenth centuries Danish peasants apparently owed considerable obligations to king or lord. In a period of demographic growth it appears that non-taxpaying landowners were able to force their tenants to pay high rents. The dramatic reduction in land rent paid to landowners from around 1360 presumably meant a real reduction in the duties paid by the *landboer* (soon to be termed *fæstebønder*), while at the same time the freeholders (about 15 per cent of the peasantry) gained some relief as their traditional money payments to the king were reduced as a result of devaluation. Using newly created territorial units called *len*, with castles at their centres, the kings were able to increase extraordinary taxes, especially from the fourteenth century: these were collected from both the crown's own peasants (freeholders as well as tenants) and from the lord's tenants. At the same time, these lords sought to increase their levies from tenants during the fifteenth century. From around 1300 protection money, *vern*, was also paid to the lords and this obligation became the starting point for new demands. From the end of the fifteenth century a new duty, *gæsteri*, the commutation of the lord's right to hospitality, was introduced. The payment of *gæsteri* was to prove a heavy burden, especially to freeholders. The fine payable on taking over a farm was increased and the requirement to feed the lord's cattle could also be quite demanding. Nevertheless, it is also true that the total sum of duties imposed on the rural population remained relatively small up to the sixteenth century. This clearly helps us understand why large numbers of peasants seem to have been prosperous, or at least by no means poor, in the Late Middle Ages.

MONEY

Fluctuations in the supply of gold and silver to Denmark reflected international developments. The market for these metals embraced the whole of the medieval “world economy”.¹ The constant deficit of the Mediterranean countries in relation to the East affected intimately the quantity of precious metals to which the Danes had access. During the Late Middle Ages, the successful transportation of gold across the Sahara Desert was an essential precondition for its arrival in Denmark. The most marked characteristic of the Danish monetary economy throughout the Middle Ages, that is to say the almost total dominance of silver, was also a result of European developments at the end of the seventh century, when gold, which had been so vital to the Roman economy and to barbarian kingdoms, disappeared and an era of silver began. For a long period, the small silver coin, be that the *denar*, the penny, the *Pfennig*, or, in Denmark, the *penning*, would be the most widespread currency in Europe.

Viking Age Coinage

The minting of coins in Danish territory can be traced back to the eighth and ninth centuries but it stopped around 850.² From that point onwards only small quantities of coins from Hedeby are known to

¹ Peter Spufford, *Money and its use in Medieval Europe* (Cambridge, 1988). On the existence of a medieval “world economy” see Janet Abu-Lughod, *Before European Hegemony: The World System A.D. 1250–1350* (New York, 1989).

² D. M. Metcalf, “Danmarks ældste mønter”, *Nordisk Numismatisk Unions Medlemsblad* 1985, 3–10. Kenneth Jonsson and Brita Malmer, “Sceattas och den äldsta nordiska myntningen”, *Nordisk Numismatisk Unions Medlemsblad*, 1986, 4, 66–71; D. M. Metcalf, *Thrymsas and Sceattas in the Ashmolean Museum Oxford*, 2 (London, 1993), pp. 275–293; Brita Malmer, “Är Ribe Danmarks äldste myntort?”, *Nordisk Numismatisk Unions Medlemsblad* 1993, 12–13; D. M. Metcalf, “Kan Hedebymønter også være præget i Ribe og Birka?”, *Nordisk Numismatisk Unions Medlemsblad*, 1996, 74–77; Lone Kierkegaard, “Ribe og Hedeby er Nordens ældste møntsteder”, *Nordisk Numismatisk Unions Medlemsblad*, 1997, 1, 6–7; Brita Malmer, “Münzprägung und frühe Stadtbildung in Nordeuropa”, in *Haithabu und die frühe Stadtentwicklung im nördlichen Europa*, eds. Klaus Brandt, Michael Müller-Wille and Christian Radtke (Neumünster, 2002), pp. 117–132.

have coined: these date from the 930s and from the 950s to the 970s.³ A completely new phase in the history of Danish coins began around 975, with the so-called 'cross type' coins, minted throughout the 980s and 990s. These coins have no inscription but carry a cross, which we must assume to be the Christian sign. They were light, weighing about 0.20–0.30g, and within certain areas may have been used, like present-day coins, as "tokens" with a value higher than their silver content denoted. Unlike the earlier coins, which came from south Jutland, these were probably minted in east Denmark, i.e. Sealand or Scania. The quantity of coins issued was considerable, with a total coinage arguably as large as those of the eleventh century. These coins also represent a substantial proportion of the coins found in treasure hoards, much more as later coinages would contribute in the first part of the eleventh century.⁴ Their area of circulation covered the whole of Denmark, from Jutland to Scania, and they are not known to have been used in Schleswig (or Holstein).

An influx of silver into Europe, necessary for the increased trading activities witnessed at this time, allowed the minting of these coins, especially the heavier ones that first appeared in the 990s. After a slow start, the Rammelsberg mine in Saxony began to give large returns. This led to the immediate and substantial minting of coins in Germany and also contributed to the supply of silver to England. The result was that Saxon silver flowed into Denmark from two directions. While it could be argued that Danish-English trade was crucial in this transfer of silver, it was tribute money (*danegeld*) that was the most important source.⁵ The *Anglo-Saxon Chronicle* records that from 991 onwards about

³ Brita Malmer, *Nordiska mynt före år 1000*, (Acta Archaeologica Lundensia, 4), (Lund, 1966), p. 224; Ralf Wiechmann, *Edelmetalldepots der Wikingerzeit in Schleswig-Holstein. Von "Ringbrecher" zur Münzwirtschaft* (Offa-Bücher, 77) (Neumünster, 1996). Only after this chapter was completed did we become aware of the interesting work by Cecilia von Heijne, *Särpräglat. Vikingatida och tidigmedeltida myntfund från Danmark, Skåne, Blekinge och Halland (ca. 800–1130)* (Stockholm, 2004).

⁴ Lars Haastrup, "Oversigt over kompositionen af danske skattefund ca. 800–ca. 1150", *Nordisk Numismatisk Unions Medlemsblad* 1969, pp. 129–132.

⁵ The import of English coins via direct trade to Scandinavia is documented by Svein H. Gullbek, "Hvordan kom angelsaksisk mynt til Skandinavia", *Nordisk Numismatisk Unions Medlemsblad* 1995, 2–6. This is supported by D. M. Metcalf, "Viking-Age Numismatics, 5, Denmark in the time of Cnut and Harthacnut", *Numismatic Chronicle* 159 (1999), 404, which shows that English coins were most common in west Denmark, that is in the areas closest to England. On the other hand it can be documented that between 10 and 42 per cent of the total English coinage went towards *danegeld* in the years it was paid. W. M. Omrod and János Barta, "The Feudal Structure and the



Ill. 11. Die for penning of King Erik Plovpenning (1241–50) found in Lund

200,000 pounds of silver in tribute and other payments was shipped to Denmark over a 60 year period.⁶ On the other hand, the numerous coin hoards found in the Nordic area testify to the fact that a more commercially based exchange with Germany had a far greater impact on the silver supply. In Danish treasure hoards from the eleventh century, Anglo-Saxon pennies are only half as common as German *Pfennige*.

The influx of English and German silver coincided with the minting of the first Danish coin to bear a readable inscription. This silver

Beginnings of State Finance”, in *Economic Systems and State Finance*, ed. Richard Bonney (Oxford, 1995), p. 58.

⁶ Cf. the discussion in M. K. Lawson, “The Collection of Danegeld and Heregeld in the reigns of Aethelred and Cnut”, *The English Historical Review* 99 (1984), 721–738; John Gillingham, “‘The most Precious Jewel in the English Crown’: Levels of Danegeld and Heregeld in the early eleventh century”, *The English Historical Review* 104 (1989), 373–406.

penning was issued Swein Forkbeard sometime between 995 and 997.⁷ The Latin inscription reads: "Swein, King of the Danes". The reverse side bears a cross and states that it was made by the Anglo-Saxon mint master Godwine, although there is nothing to indicate where it was minted. It has been estimated that this *penning* forms part of a total coinage that was quite small, so its function must have been limited.⁸ While this coin was being minted, much larger issues, imitating Anglo-Saxon pennies but without the king's name, were being produced at the newly-established town of Lund. Coins of this type are believed to have existed in great numbers and an estimate of 855,000 has been put forward.⁹

English coinages provided a model for Denmark from 995 onwards.¹⁰ From 973 an advanced system had existed in England whereby newly designed coins were issued every sixth year and the previous issue withdrawn: with each renewal of the coinage the king reaped substantial profits. The size of the coinages was considerable. An estimate of the English coinages dating from the reign of Cnut the Great suggests that 47 million pennies were issued in the years 1017 to 1023, 22 million in the years 1023 to 1029, and 14 million in the years 1029 to 1035.¹¹ The Danish system, which was adopted by Cnut in his homeland, never approached this level of sophistication.¹² The earliest of Cnut's coinages, dating from 1017/18 or earlier, originated in Lund and Viborg. The output from Lund was quite large and, as noted above, ran alongside the minting of imitation English coins. Around 1025, Cnut ordered that

⁷ For a general survey of Danish coins in the eleventh century, see *Tusindtallets Danske Mønter fra Den kongelige Mønt og Medaillesamling*, ed. Jørgen Steen Jensen (Copenhagen, 1995).

⁸ Godwine was also producing coins for the kings of Norway and Sweden. Swein Forkbeard and Olav Trygvason's coinages were probably linked to their joint Viking raids on England. Mark Blackburn, Michael Dolley and Kenneth Jonsson, "Et nyt eksemplar af Svend Tveskægs mønt", *Nordisk Numismatisk Unions Medlemsblad* 1979, 61–65. The Swedish coinages in Sigtuna around the year 1000 were large. Brita Malmer, *The Sigtuna Coinage c. 995–1005*, (Commentationes de nummis saeculorum IX–XI in Suecia repertis. Nova Series, 4), (Stockholm, 1989); Brita Malmer, Jonas Ros and Sten Tesch, *Kong Olofs Mynthus i kvarteret Urmakeren, Sigtuna* (Stockholm, 1991).

⁹ Brita Malmer, *The Anglo-Scandinavian Coinage c. 995–1020*, (Commentationes de nummis saeculorum IX–XI in Suecia repertis. Nova Series, 9), (Stockholm, 1997).

¹⁰ Kenneth Jonsson, "The Coinage of Cnut", in *The Reign of Cnut: King of England, Denmark and Norway*, ed. Alexander R. Rumble (Leicester, 1994), pp. 193–230.

¹¹ D. M. Metcalf, "Continuity and change in English monetary history c. 973–1086. Part 2", *British Numismatic Journal* 1981, 52–90.

¹² Jonsson, "The Coinage of Cnut", pp. 223–227.

mints be set up in Roskilde, Ringsted, and probably also Ribe.¹³ They issued fairly heavy coins, weighing about 1.4g. In 1026/28 a decisive break took place that was possibly connected with political events in Denmark but might also be seen as an imitation of German practices.¹⁴ The existing English-inspired coins were replaced by distinctly “regional” ones, with each mint issuing its own designs. A new weight system was introduced, so that Danish coins differed from the standard European ones but were themselves divided into two categories: in east Denmark, *penninge* weighed 1.0g, while in west Denmark the same coins weighed 0.75g. These new coins, inscribed *rex*, were minted by Cnut and his successor Harthacnut, who both titled themselves kings.¹⁵ At that time mint masters were also working in Slagelse, Ørbæk (possibly located at Aggersborg in north Jutland) and Hedeby (or Schleswig).¹⁶ This was the starting point for a more organized system of minting in Denmark. The basis of the monetary system remained in place until about 1330, namely: 10 *penninge* = one *ørtug*, three *ørtug* = one *øre*, eight *øre* = one mark.

While the technical side of Cnut’s minting reflects English practices, and the stamps for the coins were even made by English mint masters, it is clear that Denmark could not hope to attain a monopoly of coins minted within its borders as England was able to do. The evidence of hoards indicates that in the period 1025–50 only about 7–9 per cent of the coins in circulation were actually minted in Denmark.¹⁷ It is difficult to ascertain why coinages were produced at all. Without a monopoly to control the output of mints it is virtually impossible to ensure a surplus income. The representation of power or the promotion of a religious belief are clearly justifications for the design of coins, but cannot be reasons for the issue of coinages as such. After all, several million

¹³ Ringsted had a mint for only a short period, being replaced by Slagelse in 1030. Jens Christian Moesgaard, “Møntprægning i Ringsted og Slagelse i 1000-tallet”, *Sorø Amts Historisk Samfund*, Årbog 2000, pp. 40–49. There is no proof that certain coins issued by Cnut and traditionally assigned to Ribe were in fact minted there. However, in the light of the coinages minted in Ribe under Harthacnut, Svend Estridsen, and subsequent kings, it is most likely that they were produced in that town. Ingrid Nielsen, *Middelalderbyen Ribe* (Århus, 1985), p. 97.

¹⁴ Brita Malmer, “Om penningar och halvpenningar i 1020-talets Lund”, *Nordisk Numismatisk Unions Medlemsblad*, 7–8, 2003, 119–127.

¹⁵ Metcalf, “Viking-Age Numismatics, 5, Denmark”, pp. 420 ff.

¹⁶ On coinages from Ålborg issued under Harthacnut, see *Tusindtallets Danske Mønter*, p. 52.

¹⁷ Haastrup, “Oversigt over kompositionen”, pp. 129–132.

penninge were minted in the years 997–1035. Perhaps they were specifically produced to facilitate payments that were to be made by the king and others in positions of power. On the other hand commercial and fiscal motives might also have played a part. It is easy to imagine that taxes and tributes were demanded in locally minted coins and that in certain towns such coins carried a value that exceeded the one fixed by their silver content.¹⁸

In 1040 Harthacnut attempted to carry through a reform that would have fully adjusted Danish coinage to the English standard. This reform was only implemented in Lund and then for a very short while. In 1042 he died and the succession was disputed by rival claimants, as the numismatic material makes clear.¹⁹ At Lund, where the largest mint in the realm was located, the mint masters reacted circumspectly to this anarchy by issuing coins bearing unintelligible inscriptions.

Medieval Coinage

Under the rule of Svend Estridsen (1047–1074/76) the distinction between light coins from Jutland and heavier *penninge* from eastern Denmark, originally introduced in the time of Cnut the Great, was re-established and continued into the thirteenth century.²⁰ It is clear, however, that the king gradually gained a control of monetary circulation that was hitherto unknown in Denmark. Above all, he was able to enforce the monopoly of Danish coins throughout his realm. Foreign coins were no longer legal tender, a situation that remained unchanged

¹⁸ For a warning against “primitivism” in terms of eleventh-century coinages, see Christoph Kilger, *Pfennigmärkte und Währungslandschaften. Monetarisierungen im sächsisch-slavisches Grenzland ca. 965–1120* (Commentationes de nummis saeculorum IX–XI in Suecia repertis, nova series 15), (Stockholm, 2000).

¹⁹ C. J. Becker, “Studies in the Danish Coinage at Lund during the Period c. 1030–c. 1046”, in *Viking-Age Coinage in the Northern Lands. The Sixth Oxford Symposium on Coinage and Monetary History*, eds. M. A. S. Blackburn and D. M. Metcalf (B. A. R. International Series, 122) (Oxford, 1981), pp. 449–477; C. J. Becker, “The Coinage of Harthacnut and Magnus the Good at Lund c. 1040–c. 1046”, in *Studies in Northern Coinages of the Eleventh Century*, ed. C. J. Becker, (Det kongelige Videnskabernes Selskab, Historisk-filosofiske skrifter 9, 4) (Copenhagen, 1981), pp. 119–174; C. J. Becker, “Lund—Odense—Lund. Numismatiske bidrag til Danmarks historie i 1040’erne”, *Hikuin* 11 (1985), 175–182; *Tusindtallets Danske Monter*, pp. 72 ff.

²⁰ Grønder-Hansen, *Kongemagtens krise*, p. 81. The author disputes the likelihood of a Jutlandish coin system with 288 *penninge* to the mark, and an east Danish one with 240 to the mark.

for the next 250 years or so. This ruling was introduced around 1065, although the change that took place was not achieved overnight. From the 1040s onwards, Danish coins had comprised a substantial part of the circulation anyway, while conversely some treasure hoards have been found as late as 1100 that contain foreign coins.²¹ Danish coin types were standardized in the 1060s, at the time the monopoly was enforced.

The monopoly was profitable for a number of reasons. Firstly, throughout the whole of Denmark coins could now carry a surplus value in relation to their metal content. Secondly, they could be devalued, so that profit could escalate yet more. A devaluation occurred for the first time in the reign of St Cnut, who minted debased coins in Jutland in the early 1080s.²² Thirdly, the European system of coin re-issue, *renovatio monetæ*, could be introduced.²³ This system entailed the replacing of all the coins in circulation with new issues: the old coins were exchanged by royal officers for a smaller quantity of new ones. With the introduction of the monopoly in the 1060s it was the king's policy that only one mint type should be valid in each of the Danish provinces of Scania, Sealand, and Jutland. In Scania the first coin renewal took place around 1070. While the exercise became standard in this province, it is debatable whether frequent coin renewals were carried out elsewhere before the late twelfth century. We can only say that *renovatio monetæ* existed in Sealand throughout the twelfth century, whereas in Jutland it is documented for the period c. 1080–1100 alone.

From the 1060s onwards minting was principally carried out in a limited number of larger towns: Lund, Roskilde, Ribe, Viborg, and Schleswig. The size of the coinages is difficult to establish with certainty but a reasonable estimate has been put forward that during the 1070s the largest mints, i.e. those at Lund and Roskilde, turned out at least half a million coins, while the total national coinages possibly

²¹ Carsten Ljungkvist, "Omkring 'Harald Hens Møntreform' og det feudale møntvæsen", *Fortid og Nutid* 1986, 261–270; *Tusindtallets Danske Mønter*, p. 19. The treasure hoard uncovered at Lundby Krat, near Ålborg, and dating from around 1100, still contains quite a large quantity of foreign coins. The national coin monopoly system was also slow to gain ground on the island of Bornholm and in the province of Blekinge according to the treasure finds.

²² Georg Galster, "Knud den Helliges jyske mønter", *Årbøger for Nordisk Oldkyndighed* 1934, 129–136.

²³ Jørgen Steen Jensen, "Møntfornyelse (*Renovatio monetæ*) i Danmark indtil år 1200", *Nordisk Numismatisk Unions Medlemsblad* 1996, 8, 130–136; Grønder-Hansen, *Køngemagtens krise*, 44–71.

exceeded a million *penninge*.²⁴ During the first half of the twelfth century the size of coinages seems to have been reduced considerably, and it is very likely that this decrease was connected with the supply of silver bullion. Silver was in increasingly short supply from about 1040, by which time the Harz mines were exhausted.²⁵ The consequences of this shortage soon became evident and were noted by chroniclers in England in the 1070s. The Norwegian coinage was devalued in the 1060s and King Svend Estridsen tightened his control of the Danish mints.²⁶ Certainly the first Danish devaluation of the coinage in the 1080s must be attributed to the dwindling supply of silver. The precondition for a profitable use of mints, of course, was to be found in a strong power in need of revenue but devaluation was extremely unpopular and not an easy option. Throughout the Middle Ages we see fierce protests by the nobility at any royal attempts to debase the coinage, and a reaction of this type might well have been one of the reasons for the assassination of St Cnut in 1086. Among the justifications put forward for this rebellion was the allegation that the king's bailiffs "were fixing the price of goods too low" and that they "barely paid an *ørtug* (= 1/3 *øre*) for an *øre*".²⁷

From the 1160s, however, the silver mines of Europe were productive again. The discovery of enormously rich mines at Freiberg was followed by the opening of other mines at Friesach, near Salzburg, as well as in Italy. The Jihlava mines near Prague were active in the 1230s, and around the year 1300 silver mining at the richest site of all, the Kutná Hora mines in Bohemia, began.²⁸ This sudden flow of silver immediately led to a rapid growth in the quantity of coins being minted and also in their circulation around Europe. Everything indicates that this situation was paralleled in Denmark, where a marked growth in coin production and the use of money can be traced from around 1200

²⁴ Maiken Hansen, "Udmøntningernes størrelse i Danmark og Skåne i 1000 årene", *Nordisk Numismatisk Unions Medlemsblad* (1990: 3), 50–54; Jørgen Steen Jensen, "Udmøntningens størrelse", in *Danmarks middelalderlige skattefund c. 1050–c. 1550*, ed. Jørgen Steen Jensen (Copenhagen, 1992), 1, pp. 104–107.

²⁵ Spufford, *Money and its use*, pp. 95 ff.

²⁶ On the Norwegian devaluation around 1060, see Kolbjørn Skaare, *Norges Mønt-historie. Mynter og utmyntning i 1000 år. Pengesedler i 300 år. Numismatik i Norge*, vol. 1 (Oslo, 1995), pp. 49 ff.

²⁷ Georg Galster, "Knud den Helliges jyske mønter", *Årbøger for Nordisk Oldkyndighed* 1934, 129–136.

²⁸ Spufford, *Money and its use*, pp. 109 ff.

and continued until the early fourteenth century.²⁹ According to *King Valdemar's Survey* (1231), the estimated annual revenue from the mint at Lund was 1200 silver marks and 8 gold marks. If we reckon three standard marks for every silver mark, the usual rate at that time, this would mean an income for the mint of 864,000 *penninge*. If the income was generated by a coin renewal, whereby two new coins were given for three old ones, we are speaking of coinages of over two million *penninge*. The income of 900 silver marks from the Roskilde mint, noted in the same source, indicates that the figures there were only slightly lower. A qualified estimate of the number of coins minted around the year 1300 would be between five and twenty million *penninge*.³⁰ However, even this could be too low a figure: the papal tax-collector, Bertrand Amalrici, recorded that he took more than 13 million *penninge* out of Denmark in 1282 without causing any obvious shortage of coins.³¹ Other contemporary sources also reveal the vast quantities of *penninge* in circulation. A single fine paid to the king by a Danish nobleman in 1292, for instance, amounted to 300 marks, specifically noted as being "in money", i.e. 72,000 *penninge* ostensibly paid in cash.³² These huge coinages were followed by an intensified exploitation of the mint system, including *renovatio monetæ*, which was regularly practised from the reign of Cnut VI (1182–1202) onwards. Before 1230 these coin renewals were very frequent and were often carried out on an annual basis. However, in 1234 the king undertook a reform of the mint system. Coin renewals stopped and the mark was revalued from three to two standard marks for each mark of silver. It is quite possible that the direct inspiration for this reform came from the English mint system, notable for its stability, and it is very likely that the reform was carried

²⁹ Bjørn Poulsen, "Møntbrug i Danmark 1100–1300", *Fortid og Nutid* 28 (1979), 281–85; Grønder-Hansen, *Kongemagtens krise*, pp. 211 ff.

³⁰ Jørgen Steen Jensen, "Udmøntningens størrelse", p. 106; Grønder-Hansen, *Kongemagtens krise*, p. 212. A hypothetical possibility of calculating the number of *penninge* exchanged in Lund during a *renovatio* shortly before 1201 exists if we assume that the 700 marks of "old money" which one of the archbishop's officials possessed in 1201 represents the archbishop's quarter of the mint profits. This has been proposed by Michael Andersen, "Erkebiskop Absalons testamente—historie og kulturhistorie", in *Absalon. Fædrelandets fader*, eds. Frank Birkebæk, Tom Christensen and Inge Skovgaard-Petersen (Roskilde, 1996), p. 215. If this assumption is correct, 672,000 *penninge* were exchanged.

³¹ *DD*, 2.3, no. 33. The exact amount is 13,401,480 *penninge*.

³² *DD*, 2.4, no. 72.

out under the supervision of the king's English mint master, Nicholas of St Albans.³³

Given the lack of integration in the realm, it is not surprising that the reform of the mint was not carried out at the same pace throughout the whole country. In Jutland, renewals of the coinage stopped in 1231, compared with c. 1234 in Sealand. This reform was also characterized by the issue of "realm types", i.e. similar types of coin circulating in and between these two provinces.³⁴ In Scania, where the custom of renewing coins was most deeply rooted, abolition did not take place until 1249.³⁵ To compensate for the revenues that disappeared when the practice was abolished, the king negotiated the right to levy a so-called "plough tax". In 1234 we see that the Bishop of Ribe gave up half the revenues he had hitherto received from the mint at Ribe, i.e. profit resulting from the renewal of coins, in return for the income generated by a new plough tax levied in three local country areas and a couple of small towns.³⁶ The king stressed that all men must pay "the money that is owed from the ploughs for the mint".³⁷ "Eternal money" connected with plough taxes still existed in the reigns of Abel and Christoffer and is mentioned in two laws dating from 1251 and shortly after 1252: "plough money, namely one *øre penninge* for each plough so that the money can remain stable".³⁸ By 1257, however, there was a return to the old mint system, with frequent renewals to which numerous devaluations were now added.³⁹ This tough use of the coin system lasted until its temporary breakdown in the 1330s. From about 1278 the renewals were carried out every year on Michaelmas Day (29 September), the usual exchange being two new coins for three old ones.⁴⁰ At the same time the west of Denmark saw a debasement of

³³ Jørgen Steen Jensen, "Nicholas af Saint Albans—Valdemar Sejrs engelske mønt- og pengemand gennem 30 år", *Nordisk Numismatisk Unions Medlemsblad* (2005:2), 58–42. From 1237 Nicholas was in charge of the mints at London and Canterbury.

³⁴ Kaj G. Kaaber, "Introduktion til en nyordning af de danske udmøntninger i tiden fra Valdemar d. 2's senere regeringsår til Valdemar d. 4. Niels Stigsens møntreform af 1234/5 og dens skæbne indtil hans fald 1245", *Aarbøger for Nordisk Oldkyndighed og Historie*, 1986, 213–241.

³⁵ Grønder-Hansen, *Kongemagtens krise*, p. 65.

³⁶ *DD*, 1.6, no. 182, 219, 240; Cf. *DD* 2.1, no. 60.

³⁷ *DD* 1.6, no. 182, no. 203.

³⁸ *DDR*, 1, no. 7, 8.

³⁹ Grønder-Hansen, *Kongemagtens krise*, p. 67.

⁴⁰ *DDR*, 1, p. 143, § 14; *DD*, 2.4, no. 100; *DD*, 2.5, no. 310.

the coinage and here the ratio of silver marks to standard marks soon fell to its pre-1231 level of 1:3. By the 1280s this ratio had dropped to 1:5, sinking to 1:8 in 1305, before eventually plummeting to 1:10. In Scania, on the other hand, the mint stabilized and a ratio of 1:5 was maintained well into the fourteenth century.

Despite frequent debasements, the king managed to maintain a monopoly of the Danish coinage, although foreign coins began to circulate in larger numbers from the 1320s. On the collapse of royal power in the 1330s, foreign coins became the sole currency in Denmark, except in Scania, where local coins were minted by the king of Sweden until the 1360s. The foreign coins in circulation were made of good-quality silver, whereas Danish coins were not only dwindling but were now made of copper. First French *gros tournois* and then English sterlings appeared, although from the 1330s these were ousted by north German *pfennige*. From the 1360s we see the appearance of German *witten* (4 *penninge*), *dreilinge* (3 *penninge*) and *sechslinge* (6 *penninge*).⁴¹

The collapse of Danish minting was a political result of the breakdown of royal power but conversely the re-establishment of this power did not immediately result in national issues of coin: on the contrary, from 1332 to c. 1400 there seem to have been no coinages of any importance. It is true that King Valdemar Atterdag continued the coinage of the Swedish king in Scania when he regained this province but in other parts of his realm he issued only a few types of copper *penninge* and perhaps some imitations of north German *Pfennige*, which in this context can only be regarded as forgeries.⁴² The fact that the re-establishment of royal power coincided with such huge problems in launching a national mint system can probably be explained by the international supply of precious metals. By the 1340s the European mines had become depleted and by the 1370s northern Europe was badly affected by a general shortage of silver. The period stretching from the 1390s to the 1460s has with good reason been termed a time of "silver famine". It appears that the quantity of precious metals in Europe fell by half between 1325–50 and 1450–75.⁴³ We can see the

⁴¹ Keld Grinder-Hansen, "Den danske møntøkonomi og Europa i 1300-tallet", in *Danmark og Europa i Senmiddelalderen*, eds. Per Ingesman and Bjørn Poulsen (Århus, 2000), pp. 198–215.

⁴² Grinder-Hansen, "Den danske møntøkonomi", pp. 198–215.

⁴³ John Day, "The Question of Monetary Contraction in late Medieval Europe", *Nordisk Numismatisk Årsskrift* 1981, 12–29. Spufford, *Money and its use*, pp. 339 ff.

Table 14 After North 1994, p. 43. Coinage in Lübeck, in marks of silver

1367	11420
1368	11800
1369	11302
1370–72	45008
1373	4549
1375	5487
1376	5120
1392	1867
1422	600
1439	2800
1467	985
1492	853

dramatic consequences of this shortage in the smaller coinages being issued by European mints. Coinages in Lübeck, which were largely directed at the Scandinavian market, fell rapidly (tab. 14).

We find a Danish comment on this silver shortage in 1396, when Queen Margrethe imposed a tax on the grounds that “*hær i alle lande er vanske om mynth, at han er ey i landen*”, (“here in all provinces there is such a great lack of coin, that it is not in the provinces”).⁴⁴ It was not until 1403 that Danish minting was re-established. It was now based on the Lübeck system, with 12 *penninge* to every *skilling* and 16 *skillinge* to every mark.⁴⁵ Until the end of the fifteenth century only small denomination coins were minted and even then they imitated foreign ones: half *penninge*, *penninge*, sterlings (three *penninge*), *witten* (= *hvide*, four *penninge*), groats (nine *penninge*) and *skillinge*. In daily trade the coins minted by the Danish king were common currency but until the 1430s they circulated alongside north German silver coins, and throughout the whole of the fifteenth century gold coins from all over Europe were also in circulation. Coins from the other Nordic countries in the Calmar Union did not play a crucial role.

The enforced coin renewals of earlier periods were no longer practised and profit was now only earned by a mint duty and by ascribing

⁴⁴ *DDR*, 1, p. 338.

⁴⁵ Cf. Jørgen Steen Jensen, “Monetary Circulation in Denmark c. 1350–c. 1500”, *Nordisk Numismatisk Årsskrift* 1981, 160–170; Keld Grinder-Hansen, “Møntforholdene under Kalmarunionen til 1448”, in *Margrete 1. Nordens Frue og Husbond. Kalmarunionen 600 år. Essays og udstillingskatalog*, ed. Poul Grinder-Hansen (Trelleborg, 1996), pp. 129–133.

a surplus value to the coin that was higher than its base metal value. The coinage was also drastically debased at intervals: for example, in the 1420s and 1430s, King Erik the Pomeranian minted enormous quantities of copper sterlings in the towns of Næstved, Lund, Odense, and Randers. Generally speaking, however, Danish coinages appear to have been fairly small until the mid-fifteenth century.

From the 1460s the quantity of precious metal circulating in Europe again rose sharply. Substantial deposits at Schwaz, in the Tyrol, at Schneeberg in Saxony, and later, in 1518, at the newly-discovered Joachimsthal (present-day Jáchymov) mine, in Bohemia, led to the doubling of central European silver production in the years 1470–1520. There was also an increased import of African gold, while from the early sixteenth century onwards the arrival of precious metals from the Americas began to make an impact.⁴⁶ These developments undoubtedly stimulated an increased output of low-denomination silver coins in Denmark. The minting of *hvide*, begun during the reign of Christoffer the Bavarian in the 1440s, saw a considerable upswing and the coinage produced by Danish mints in the second half of the fifteenth century ostensibly exceeded the output of the mints in the Hanseatic towns.⁴⁷ The reason for this outpouring was possibly a favourable trade balance, which channelled a substantial quantity of this silver into Denmark; furthermore, the debasement of the *hvide* contributed to a greater output by the mints and made it possible to export coins abroad.⁴⁸ Large-scale minting of small denominations coins took place in the first four decades of the sixteenth century, especially in the years of war, from 1518 to 1522, when Christian II minted large numbers of *klippinge*. From 1519–21 we have records accounting for 536,900

⁴⁶ Michael North, *Das Geld und seine Geschichte vom Mittelalter bis zur Gegenwart* (München, 1994), pp. 70 ff.

⁴⁷ Jørgen Steen Jensen believes that the Danish coinages of the mid-fifteenth century were larger than anywhere else in Europe. Jørgen Steen Jensen, "Udmøntningens størrelse", p. 105. This assumption, however, seems to rest on the dating of a *hvid* minted by the council of the realm in 1448. This dating is now disputed. Bent Østergaard, "Rigsrådets hvid—ikke 1448, men 1481–83", *Nordisk Numismatisk Unions Medlemsblad*, 1995, 3, 34–39. Presumably the large Danish coinages of *hvide* belong mainly to the period after 1460. On the favourable trade balance of the fifteenth century, see Poul Enemark, "Lybæk og Danmark", pp. 161–187.

⁴⁸ Bjørn Poulsen, "Danske hvide til Nordtyskland", *Nordisk Numismatisk Unions Medlemsblad* 1986, 5, 82–86.

marks' worth of such *klippinge*, and it thus possible to say that they were produced in their millions. In the period 1534–37, Christian III partly financed his participation in the civil war by minting debased coinage to a total value of almost a million gold *gulden*.⁴⁹ The greater quantities of gold and silver also meant that some very high denomination coins were struck in Denmark. Golden nobles and *gulden* were minted in the years 1496–97 and 1500 by King Hans to pay his mercenaries (150,000 *gulden* were minted in all) and, as the first Danish ruler to do so, Christian II (1516–18) ordered the minting of a larger silver coin, a *gulden* modelled on a Tyrolean prototype. Reflecting the fact that large silver coins based on the Joachimsthal model had become more common, *talers* were minted in Denmark in 1537. Not until 1541, however, was a more modern mint system introduced into Denmark. According to a fixed and uniform system, marks, half marks, *skillinger*, *hvide*, and *penninge* were now minted. From 1544, *talers*, i.e. Danish *dalere*, were coined, and formed part of this standardized system.

Mint Supply and Monetization in the High Middle Ages

Coin circulation in medieval society could only be maintained through a constant supply of coins. Part of this supply was made up of Danish coins, although at times foreign coins predominated. Silver bullion, in bars or ingots, barter, and credit were also contributory elements in the overall pattern of exchange.

In the Viking period, exchange was primarily carried out according to the weight of silver. Ingots, jewellery, and foreign coins, either whole or in fragments, were valued according to their weight. There has been tendency recently to regard Viking silver as primarily an object of gift-giving by the powerful to the subordinate, but there are problems with this assumption.⁵⁰ For a start, we cannot dismiss the fact that the early

⁴⁹ Georg Galster, "Reynold Junges Møntmesterregnskaber 1534–1540", in *Festskrift til Kristian Erslev den 28. December 1927 fra danske Historikere*, ed. Poul Nørlund (Copenhagen, 1927), pp. 271–290; Søren Balle, *Statsfinanserne på Christian 3.s tid* (Århus, 1992), p. 53.

⁵⁰ Christian Keller, "Nordisk vikingetid—forsøk på en økonomisk modell", in *Universitetets Oldsakssamling Årbok 1972–74*, eds. Irmelin Martens, Egil Mikkelsen and Inger H. Vibe-Müller (Oslo, 1976), pp. 99–110; Lotte Hedeager, "Krigerøkonomi og handelsøkonomi i vikingetiden", in *Norden og Europa i vikingetiden og tidlig middelalder*, ed. Niels Lund (Copenhagen, 1994), pp. 44–68.

Danish coinages, i.e. pre-1065, must have had a societal function. It is also the case that an increasing body of evidence suggests that some coins were exchanged at face value in this period and also circulated locally. Danish coinages might well have resulted from a royal desire to confer gifts and make payments of various kinds, as well as providing currency that could be demanded for the rendering of certain dues and taxes, for example.⁵¹ The question is, however, how different the Danish situation was before the introduction of a monopolized coinage around 1065 from, say, northern Germany, where coins were also minted to be circulated at specific markets, making it easier to levy certain dues and taxes, while also establishing a recognized standard that could be used in long-distance trade.⁵² The increased occurrence in Denmark of stray hoards dating from the second half of the tenth century certainly indicates that coins often changed hands in small quantities. This indicates that a nominal value was being ascribed to the coins rather than a value based on the quantity of silver they contained. Single finds have been discovered in towns and at trading posts and small harbours, as well as in rich rural settlements, proving, it seems that coins were actually used as currency in these places.⁵³

The introduction of a weight standard for coins, or rather two standards, one for Jutland and one for Sealand, from the 1020s onwards, shows that the weight of a *penning* was now considered crucial, as it allowed coins to be counted. As many people have asked: why bother about a standard weight if it is not to facilitate counting?⁵⁴ It appears

⁵¹ Peter Carelli, "Varubytet i medeltidens Lund. Uttryck för handel eller konsumtion?", *Meta. Medeltidsarkeologisk tidskrift*, 1998, 3, 3–27.

⁵² Kilger, *Pfennigmärkte und Währungslandschaften*. That in some contexts local coinages were achieving a money function as early as the Viking Age is supported by an increase in circulation. In the second half of the tenth century and into the eleventh century, the proportion of coin fragments, i.e. hack silver, rises markedly in Nordic and Slavonic finds. Generally, finds from the Danish provinces include far more hack silver than those from the rest of Scandinavia. Many of the coins are also marked with knife pecks, caused by control of the silver content in the coins. We must assume that these coins were not counted according to their nominal value but according to their weight: but on the other hand we must see the pecks as a sign of a period of intensive exchange. Birgitta Hårdh, "The Function of Silver in the Viking Age. Discussion of methods and results", in *MARG. Medieval Archaeology Research Group. Proceedings of the first meeting at Isegran, Norway 1988, Coins and Archaeology*, eds. H. Clarke and E. Schia, (BAR International Series, 556), (Oxford, 1989), pp. 43–51.

⁵³ Jens Christian Moesgaard, "Enkeltfundne mønter fra vikingetiden", in *Beretning fra attende tværfaglige vikingesymposium*, eds. Gillian Fellows-Jensen and Niels Lund (Århus, 1999), pp. 17–34.

⁵⁴ Metcalf, "Viking-Age Numismatics, 5, Denmark", pp. 395–430 (p. 397).

that a mint economy, in which coins were accepted at “face value”, was introduced in some sectors of society while others continued to rely on the weight of coins.⁵⁵ One of the first signs that coins were being counted and not weighed comes from hoards dating from the 1030s onwards and containing a number of coins that make up fractions of the mark, i.e. 240 *penninge*.⁵⁶ A treasure find from Bonderup, west Sealand, dating from 1065–70, even contains 240 *penninge*, both Danish and English, making up exactly a mark in coin. It appears that on occasion both Danish and foreign coins might be counted not weighed.

For the introduction of a truly national mint economy, in which coins actually circulated generally according to their nominal value and not just as weights of silver, the mint monopoly of c. 1065 must have been decisive. In the periods 1065–1330 and 1400 onwards the Danish king generally (although not invariably) exercised a monopoly over his own coinage. During this period Danish mints, rather than foreign sources, were the primary suppliers of money to the populace, and it is therefore justifiable to consider the output of Danish mints in relation to population figures in order to assess how many people had access to coins. As already noted, we do not have precise figures for the output from Danish mints but nevertheless it is clear that from the eleventh century onwards the production of coins was growing. It is quite feasible that there was an increase in the coinage from one million *penninge* per year minted in the eleventh century to more than twenty million in the 1320s. There are also indications that the output in the first half of the fifteenth century was smaller than it was around 1300. If this assumption is true, the picture in Denmark resembles the situation in the rest of Europe. In England, for instance, coinage rose from £37,500 at the end of the eleventh century to £900,000 around 1300, and here, as in most other places, the output suffered a distinct fall in the fifteenth century.⁵⁷ In attempting to reckon the size of the Danish population, moreover, we are treading on even more uncertain ground. In England it is possible to calculate a theoretical increase from the year 1086, when the total amount of money available in the

⁵⁵ Cf. Svein H. Gullbekk, “Probermerker og myntcirkulasjon: Sirkulerte mynt i Norge før etableringen av et nasjonalt myntvesen i 1050-årene”, *Nordisk Numismatisk Unions Medlemsblad* (1997:1), 2–6.

⁵⁶ Metcalf, “Viking-Age Numismatics, 5, Denmark”, p. 398.

⁵⁷ Nicholas Mayhew, “Modelling medieval monetisation”, in *A commercialising economy. England 1086 to c. 1300*, eds. Richard H. Britnell and Bruce M. S. Campbell (Manchester, 1995), pp. 55–77.

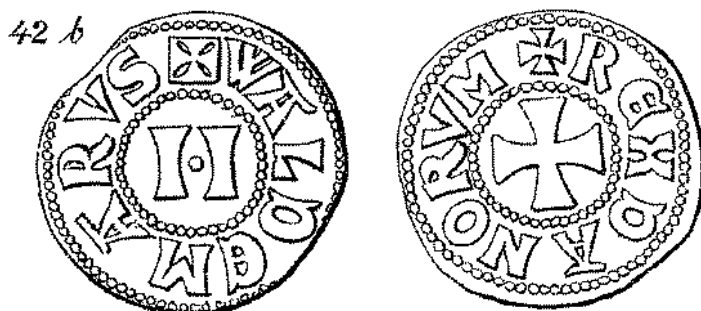
country allowed four pence per caput, until the year 1300, when the figure reached 36 pence.⁵⁸ The evidence speaks for a similar or even more dramatic development in Denmark. If we accept the estimate put forward in our chapter on 'Population' that the population of Denmark in 1300 was about 2 million people, we can calculate that there were about 10 *penninge* available for every inhabitant of the realm.

The process of monetization in Denmark, which can be documented from both written sources and numismatic material, shows that there was gradually more coins being used and that they served more functions. The sources speak so frequently of money being used that we conclude that the availability of money must have increased. The process of monetization took place on several levels. For example, a growing number of goods had an actual price assigned to them. Furthermore, the number of people involved in monetary transactions clearly grew. The spheres of society in which money circulated can be divided into: 1) the princely-political sphere, where transactions included tribute money, and military and institutional transfers; 2) a middle sphere, comprising magnates, merchants, and ecclesiastical institutions, where large payments were made and long-distance trade engaged in; and 3) a local sphere, embracing all the many transactions associated with daily life and undertaken primarily by peasants and town-dwellers of modest rank.⁵⁹

The princely-political sphere is well documented by written sources. The 25,000 marks of silver paid by Valdemar II for his release when he was taken prisoner in 1223, for instance, was noted in both Danish and German chronicles and was also carefully recorded in various letters. In the middle sphere, coins often left the country in the course of trade, and silver was frequently valued according to weight, a procedure that continued throughout the Middle Ages. From a very early time, merchants possessed money which could be commandeered by kings and powerful noblemen. It is no accident that the only duties in money mentioned in the oldest surviving Danish charter, which dates from 1085, are 21 marks levied on plots of land in the town of Lund, and 3 marks levied from plots in the towns of Helsingborg and Lomma. Danish traders were involved in international transactions throughout the medieval period. In the last decades of the fifteenth century the

⁵⁸ Mayhew, "Modelling medieval monetisation", p. 53.

⁵⁹ Poulsen, "Møntbrug i Danmark", pp. 281–85.



Ill. 12. Penning minted in Ribe by King Valdemar II in the second half of the 1230s

sources reveal their transnational trade in currencies. German merchants at that time bought Danish *hvide* for two *penninge* each and shipped them to Sweden, where they were valued at three *penninge*. Frederik, Duke of Schleswig and Holstein, received Danish *hvide* at two *penninge* each, only to exchange them for grain and cattle from Denmark at the rate of three *penninge*.⁶⁰

In the princely/political and middle spheres of circulation we can establish continuities going far back in time but we can also identify growth and new phenomena. The most marked element of medieval monetary circulation, however, was its integration into the local sphere. This integration can be shown in the payment of duties and taxes in money rather than kind and in the coins that have been found.

Given that cash duties were recorded in the above-mentioned Danish charter in 1085, it is no surprise to learn that a cash rent was also paid for urban plots of land in the twelfth century.⁶¹ It is far more astonishing to discover that rural farms were paying their land rent in money just as early. Documentation of land rents in Scania has survived from 1123 onwards and all sources indicate that this was a money duty, or at least that it was assessed in money.⁶² Similar twelfth-century sources

⁶⁰ Poulsen, "Danske hvide til Nordtyskland", pp. 82–86.

⁶¹ See, for instance, *DD*, 1.3, no. 152.

⁶² Ulsig, "Landboer og bryder, skat og landgilde", p. 156.

also exist in Sealand: from here we have a record dated 1161 showing the annual rent for a plot of land as half a mark.⁶³ The Paraphrase of the Law of Scania, which dates from the early thirteenth century, states that the tenant (*landbo*) should pay his land rent to his lord in cash before 15 August so that the latter could buy what he needed at the fish market, i.e. at the Scanian markets.⁶⁴ In the thirteenth century we see a movement towards more payments in kind, very possibly furthered by the frequency with which the coinage was either debased or recalled and renewed. If practical considerations made it difficult to pay in kind, a manor farmed out or a *curia villicalis* could pay duties in money. For example, around 1313, tenants farming large *brydegårde* in Sealand belonging to the Canons of Aarhus paid their rents in marks, although those in Jutland paid in grain. In general, however, money duties at this time were reserved for modest farms and smallholdings, the homes of *landboer* and *gårdsæder*.⁶⁵ Such small farms doubtless lacked sufficient land to produce a surplus, so their payment in cash must be an indication that other sources of income were present in rural society. It is most likely that they carried out paid work on the larger farms but new alternatives, such as the practice of various crafts, could also explain it.⁶⁶ While cash was important throughout the entire medieval period, there were marked regional differences in its distribution. In the fifteenth and sixteenth centuries, large parts of Scania were characterized by land rents paid in cash, as indeed they were on the west coast of Jutland as a consequence of the large-scale cattle farming and trading activities that took place there.⁶⁷ Around 1370 the land survey drawn up for the Bishop of Roskilde shows that in Sealand payment in grain was the commonest form of land rent, although this existed alongside other forms of rent. There were many villages and settlements where people paid their yearly duty in money, often calculated in groats and sterlings, more rarely in *mark penninge* or silver marks. It is significant that

⁶³ Erik Ulsig, "Landboer og bryder, skat og landgilde", pp. 144, 157.

⁶⁴ *DGLK*, 1, p. 660 (§ 143).

⁶⁵ Most of the *landbogårde* mentioned in *Ribe Oldemoder*, a survey of land belonging to the Canons of Ribe and dating from around 1300, were farmed by tenants who paid a money duty on St Andrew's Day, 30 November. *RO*.

⁶⁶ See chapter on crafts.

⁶⁷ In 1532, the 270 peasant farms attached to the archbishop's castle at Åhus paid 140 marks 3 *skilling* 11 *penninge* in rent. Ingesman, *Ærkesædets godsadministration*, p. 111; Poulsen, *Land. By. Marked*, p. 77.

the farms paying cash were often situated in areas where the rent was also paid in butter or pigs and which were located in the wooded parts of Sealand. Here it must have been more profitable for landowners to allow their tenants to sell their own products and pay a money rent in lieu. Doubtless the problem of transporting butter over long distances played a decisive role in this.⁶⁸ By about 1500, land rents were still paid in money throughout large parts of Sealand but this form of payment disappeared during the sixteenth century. By c. 1600 money rents were mainly concentrated to south Sealand and Møn.⁶⁹ Coin debasement was perhaps a factor in this development but the trend was also intensified by a desire on the part of landlords to sell agrarian products themselves rather than leave these transactions to their tenants.

It is interesting to see that money duties appear in the agrarian sector at such an early date. By the twelfth century, coins were commonly circulated locally and could be taken out of circulation on a local basis too, a point that is made clear by duties payable to the church. Around 1177, the monks of Ringsted were given permission to continue "the old custom" of collecting two payments in cash, one called "*Knuds skud*", the other "*Marias skud*".⁷⁰

Tithes were commuted to cash at a very early point. Even in the years before 1171, duties to the bishop were paid in cash by the Sealand *herred* of Ringsted, and in 1201 we hear that the people of Scania were also paying their tithes partly in money.⁷¹ Local churches soon suffered from competition at the hands of nation-wide taxes imposed by the pope. In principle the aim of "Peter's Pence" was to levy one *penning* from each household. It is impossible to prove that this principle was actually put into practice in the twelfth century, never mind the eleventh century, as some scholars believe, but it is quite feasible that this tax was paid in cash in the early twelfth century in line with other known

⁶⁸ See Bjørn Poulsen, "Monter i den senmiddelalderlige danske agrarøkonomi. Nogle bemærkninger", *Hikuin* 11, (1985), 227 f.

⁶⁹ Gissel, *Landgilde og udsæd*, p. 130; Svend Gissel, "Payments in Money and in Kind in Late Medieval Scandinavia. Studies in Agrarian Rents", *Nordisk Numismatisk Årsskrift*, 1981, p. 51.

⁷⁰ DD, 1.3, no. 68.

⁷¹ DD, 1.4, no. 32.

duties.⁷² In the 1250s it was clearly paid in coin, because we know that the Archbishop of Lund extracted cash from the duties he collected. Written sources dating from the fourteenth century confirm that Peter's Pence rose to three *penning* per head as a result of the debasement of the coinage and was paid by rural parishes to the cathedrals. The payment of Peter's Pence came to an end in the 1330s but the existence of the levy seems to confirm the widespread possession of money. That millions of *penninge* circulated amongst the population and could be transferred from Denmark to Rome is also revealed by the crusade duties and tithes paid in Denmark from the twelfth century onwards.⁷³ In 1213 money boxes were placed in every church in the country for the collection of alms, and from 1274 crusade tithes were systematically levied, initially as a genuine tenth, later as a twentieth part, of all ecclesiastical revenues. The income from the six year tithe, which began in 1274, amounted to 55,203½ marks in Danish *penninge*, 177 marks in Wendish money from Rügen, 427 silver marks silver (Danish weight), as well as 54 shillings and 10 pence sterling. Several other sources of income were added to this and also formed part of the crusade duties: these sums comprised 636 Danish marks, 663 marks and five ounces of silver (Danish weight), as well as three marks and 14 sterlings in gold (Danish weight). A vast quantity of silver was circulating the country and could therefore be cashed in by church and crown.

In our last chapter, 'Rural Levies and Royal Finances', we discussed the development of royal taxation. As noted there, it was only from the late twelfth century onwards that there was an obvious trend towards more fixed and general levies by the crown, and it can hardly be said that the royal finances were the driving force in the payment of taxes in money, rather than in kind. As far as can be established, it appears that taxes and tributes levied in silver during the eleventh and twelfth centuries were paid mainly by those living in northern Friesland and Bornholm, as well as by town-dwellers throughout the whole of Denmark.⁷⁴ However, by the end of the twelfth century the crown seem to have

⁷² Herluf Nielsen, "Peterspenge", in *KLNM*, 13, col. 249–252.

⁷³ Cf. Kurt Villads Jensen, "Korstogstanken i dansk senmiddelalder", in *Danmark og Europa i Senmiddelalderen*, eds. Per Ingesman and Bjørn Poulsen (Århus, 2000), pp. 42 ff.

⁷⁴ Cf. Ulsig, "Landboer og bryder, skat og landgilde", p. 159.

been levying taxes in money from every household in the country and this continued throughout the thirteenth century. The Halland List, which forms part of *King Valdemar's Survey* and dates from about 1240, records that the king was paid duties in both cash and kind. One of the duties the five northernmost *herreder* in Halland were required to render, for instance, was three silver marks "to buy grain...when the king arrives".⁷⁵ The plough tax paid by both urban and parts of Jutland from 1231 onwards soon spread to the rest of the country and was generally a money tax. We know that in three large areas of Jutland the tax levied before the mid-thirteenth century amounted to 18 *penninge* for each plough.⁷⁶ Nevertheless, in the fourteenth century, when ploughs were also used as units of taxation and when the amounts imposed were particularly heavy, the peasants did not always pay in cash. In 1325 we hear that the king "levied and took one silver mark for each plough or the equivalent in meat or butter". The option of paying royal taxes in either money or kind was also a feature of certain extraordinary taxes imposed in the fifteenth century, but it is equally true that from c. 1200 onwards money taxes were a regular constituent of the king's income.⁷⁷

The evidence of written sources indicating a broad monetization of society in the period 1100–1250 can be substantiated by coin finds. Fundamentally there are two types of coin find: treasure hoards and single or stray finds. A special group of single finds are known as 'church finds' and are believed to have had a ritual purpose. Church finds in Sweden, for example, have been used to illustrate the way in which the use of coins began in the thirteenth century and gradually spread to the whole country during the fourteenth century.⁷⁸ Coin finds are also common in Danish churches. An investigation of 3,600 coins found in Danish churches shows a marked growth in their number around the year 1200.⁷⁹ In line with the written sources, the single finds from churches thus indicate the point when coins began to be

⁷⁵ Poulsen, *Bondens penge*, p. 18.

⁷⁶ *DD*, 2.1, no. 60.

⁷⁷ For an example of a mixed tax, i.e. in both cash and kind, dated 1467, see *Rep.*, 2nd ser., 2316.

⁷⁸ Henrik Klackenborg, *Moneta nostra. Monetarisering i medeltidens Sverige* (Lund, 1992).

⁷⁹ Olaf Olsen, "St. Jørgensbjerg kirke", *Aarbøger for nordisk Oldkyndighed og Historie*, 1960, 1–71.

widely circulated in substantial quantities. A later investigation, which included other types of single finds, gives a more generalized picture: the use of coins in local circulation can be pinpointed in towns to around 1150–1200, while single finds in rural districts are rare before the mid-thirteenth century. A new and more intensive use of coins seems to have become common in towns from the end of the twelfth century and to have spread from there to rural areas. For instance, an investigation of single finds from the town of Lund indicates that in the period 1000–1157 the use of coins was limited to the market-place. Only after this date were coins circulated throughout the town.⁸⁰ A recently published survey of 9405 single finds dating from 1241–1340 shows that a coin economy generally existed in rural areas by the second half of the thirteenth century, and also that there was a relatively constant line of development in monetization from 1241 until the years 1310–20. There is no doubt that the quantity of money in circulation had increased rapidly.⁸¹

Treasure hoards are more difficult to interpret than single finds. However, it is possible to infer that treasures found in rural areas are common in the period when single finds and written sources both indicate that coins were in wide circulation in those parts. According to the evidence of treasure hoards, fortunes of 7000 *penninge*, corresponding to about 30 marks, were not unheard of in country areas. If we discount two exceptionally large finds, the average for the period 1286–1332 is only 981 *penninge*, i.e. four marks, and nearly all the finds contained fewer than 100 coins.⁸² In some cases it is possible to assess the social status of the men who buried the treasure. Some were clearly peasants.⁸³ For instance, beneath the floor of a medieval turf-built farm in

⁸⁰ Peter Carelli, "Varubytet i medeltidens Lund. Uttryck för handel eller konsumtion?", *Meta. Medeltidsarkeologisk tidskrift* (1998:3), 19–20.

⁸¹ Grønder-Hansen, *Kongemagtens krise*, p. 182. Cf. p. 213.

⁸² Poulsen, "Mønter i den senmiddelalderlige danske agrarøkonomi", p. 232; Keld Grønder-Hansen, "Fundtyper og sammensætning af skattefund", in *Danmarks middelalderlige skattefund c. 1050–c. 1550*, ed. Jørgen Steen Jensen (Copenhagen, 1992), 1, p. 37.

⁸³ The burying of a hoard of 30 *penninge* in the Sealand village of Krøjerup, near Sorø, may be linked with a local feud that occurred in 1288, when a clerk from Roskilde occupied the village and confiscated it from Sorø Abbey on behalf of the bishop. It is tempting to assume that one of the *landboer* or *gårdsæder* of the abbey hid his cash as the clerk rode into the village. Poulsen, "Mønter i den senmiddelalderlige danske agrarøkonomi", p. 232. Another thirteenth-century find from excavations at the Schleswig village of Schuby consisted of 766 *penninge* and 11 foreign coins, corresponding to more than three marks. Ralf Wiechmann, "Ein Münzfund des 14. Jahrhunderts aus Schuby, Kr. Schleswig-Flensburg", *Offa* 51 (1994), 143–190.

west Jutland a small hoard dating from 1330–50 has come to light: it contains two English sterlings and 13 German *Pfennige*.⁸⁴ Surely we can conclude that by the second half of the thirteenth century even quite humble peasants used coins routinely and both saved and hoarded them. This frugality was essential if they were to pay taxes, duties, and rents in cash. Virtually every household must have needed a small stock of around 20 *penninge* permanently to hand. This development from a fairly limited circulation of coins around 1100 towards a “democratized” one around 1300 would not have been possible without a boosted money supply which in practice tallied with the larger coinages being issued by the royal mint.

Regional and international differences in monetization

It is clear that from the eleventh century and until the first decades of the fourteenth century, both the number of coins minted and their circulation increased. There is also convincing evidence that this growth took place primarily in the thirteenth century, although the earlier development should not be underestimated.

A closer study of the written and numismatic sources shows that monetization did not occur simultaneously throughout the realm. In the eleventh and early twelfth centuries there were some regions that were only marginally touched by the national circulation of coins. It was only very late that there was a monopoly of Danish coins in Bornholm and Blekinge, a consequence no doubt of the late inclusion of these areas in the realm. On the other hand, certain parts of east Denmark, especially Scania, were fairly advanced in monetary terms. Many eleventh-century treasure hoards include silver fragments in weights that are almost identical to fractions of *penninge*. This must be taken as evidence of a growing local circulation that also included petty trade. In the period 1020–1044, 44 per cent of the coin finds from Scania, Bornholm, and Sealand contain these silver fragments, while only 37 per cent are found in the rest of Denmark.⁸⁵ This difference can presumably be attributed to the fact that the exchange of silver

⁸⁴ Helle Henningsen, “Middelalder i Fjand”, *KUML. Årbog for Jysk Arkæologisk Selskab*, 2000, 151–198.

⁸⁵ Maiken Hansen, “Udmøntningernes størrelse i Danmark og Skåne i 1000 årene”, *Nordisk Numismatisk Unions Medlemsblad* (1990:3), 50–54.

was greater in east Denmark than in the rest of the country, a point substantiated by the role of Lund as the site of the largest mint in Denmark from 995 onwards. A study of coin circulation in the years 1241–1340 also shows that even in the early part of this period Scania experienced a much greater degree of monetization than the rest of the country.⁸⁶ The early occurrence of a cash land rent in Scania and its continuance throughout the Middle Ages could very well be related to this high degree of monetization. There are a number of possible explanations for the phenomenon: the early concentration of royal power in Scania in the eleventh century; the commercializing effect of the Scania market; and the continuing and partially successful fight by the Archbishop of Lund against the devaluation of the coinage. The relatively stable coinage that ensued might very well have meant that landlords were less inclined to convert rents from money to kind than their counterparts on the Danish islands.

In the rest of Denmark the process of monetization that we associate with the High Middle Ages also shows considerable geographical variation. Certain regions were more advanced than others. The numerous money rents paid on the island of Møn in 1370 probably reflect the well-documented trade that the islanders carried out with Germany, as well as their participation in the herring fisheries around the Sound. It is obvious that such activities were a precondition for a number of coin finds discovered on the island of Møn and in the southernmost part of Sealand.⁸⁷ The west coast areas of Schleswig, where land rents in money were common, also differs from other regions in having a high degree of monetization, and this is testified to by both coin finds and written sources.⁸⁸ Presumably less developed areas existed too. The investigation, already cited, of single finds in the period 1241–1340, for instance, shows that there were so few from north-west Jutland that this factor, combined with the very few treasure hoards uncovered in the area, indicates a monetary underdevelopment in these parts.⁸⁹

The generally unsophisticated state of Denmark in monetary terms became clear as gold began its triumphant progress through Europe

⁸⁶ Grinder-Hansen, *Køngemagtens krise*, p. 213.

⁸⁷ From the period c. 1340 to c. 1420 alone, this area has yielded four treasure finds from Stege on the island of Møn and one from the town of Vordingborg, plus finds from the villages of Ebbelnæs and Maglemøse, Møn, as well from the villages of Knudsbj, Bakkebølle, and Roneklint in south Sealand.

⁸⁸ Poulsen, *Bøndens penge*.

⁸⁹ Grinder-Hansen, *Køngemagtens krise*, p. 203.

in the 1320s, promoted primarily by the discovery of ore in Hungary. Silver was abandoned for the payment of substantial sums in a number of countries, including Hungary, France, the Netherlands, England, and the Rhineland area of Germany. Nonetheless, Scotland, Scandinavia, Poland, and parts of northern Germany retained their silver-based economies. In these countries silver coins and silver ingots continued to be used. Admittedly a small number of gold coins were used by high-ranking churchmen from around the year 1300, while the gift of a *florin* to every religious house in Denmark by King Erik Menved in 1319 may account for stray finds of this coin.⁹⁰ Two fourteenth-century treasure hoards containing gold coins must have belonged to foreign merchants and a royal courtier respectively but a few *gulden* from Lübeck, a couple of gold coins from Belgium, and some English nobles from the same century—all uncovered as stray finds—may represent the early circulation of gold. However, it was not until the first decades of the fifteenth century that gold arrived in Denmark in quantity, initially in the shape of English nobles and, from the 1430s onwards, as gold *gulden* from the Netherlands and the Rhineland.⁹¹ This stream of gold is evidenced by coin finds as well as by written sources. The gold *gulden* now became common and was used in many different types of transaction. Gold, of course, was always precious but it circulated in such quantities that inevitably some of it was lost. In Copenhagen alone we have five stray finds of gold coins dating from the Late Middle Ages, while from Malmø there are four.⁹² Gold coins were not reserved for town-dwellers. In 1460 and as a result of a tax paid by local peasants, the royal castellan at the castle of Tranekær could render to the king 80 Rhenish *gulden*s in gold, together with 300 marks in silver.⁹³ Generally, however, Denmark—in company with northern Germany—remained below the European average in terms of the use of gold. Until the mid-sixteenth century, gold coins constituted only a quarter of the money in the realm, while

⁹⁰ Jørgen Steen Jensen, "Danish Money in the Fourteenth Century", *Medieval Scandinavia*, 6 (1973), 161–171; Keld Grinder-Hansen, "Den danske møntøkonomi og Europa i 1300-tallet", in *Danmark og Europa i Senmiddelalderen*, eds. Per Ingesman and Bjørn Poulsen (Århus, 2000), p. 204.

⁹¹ Jørgen Steen Jensen, "Monetary Circulation in Denmark c. 1350–c. 1500", *Nordisk Numismatisk Årsskrift* 1981, 168.

⁹² Anne Jacobsen and Otto Mørkholm, "Danske guldmøntfund fra middelalderen", *Aarbøger for nordisk Oldkyndighed og Historie*, 1966, 71–101; Jørgen Steen Jensen, "Senmiddelalderlige guldmønter fra Malmø", *Nordisk Numismatisk Unions Medlemsblad* 1995, 10–11.

⁹³ *Rep.*, 2nd ser., 1226.

in south Germany, for instance, it constituted 70 per cent throughout the fifteenth century. The reason for this discrepancy had nothing to do with fiscal or monetary policy, but must be attributable to the limited amount of gold that came into Denmark and northern Germany via trade in the Baltic Sea. From a monetary point of view, Denmark in the fourteenth to the sixteenth centuries was part of a peripheral area, albeit one that included sophisticated Hanseatic towns on the southern shores of the Baltic.⁹⁴

Coin Shortages in the Late Middle Ages

Gold was not as widespread in late medieval Denmark as it was elsewhere in Europe, but, as noted above, there was a general European shortage of gold and silver from the 1390s to the 1460s. The output of German mints suffered a marked setback in the fifteenth century, only to grow again in the sixteenth century, and there is reason to believe that a similar fluctuation took place in Denmark. In north Germany it has been estimated that this trend led to a fall of about 50% in the amount of money circulating during the period of decline.⁹⁵ Whether this was the case in Denmark is not known but there are indications that certain periods in the fifteenth century were notable for their serious coin shortages.

Written sources from the fifteenth century indicate that coins were now being commonly used by people from all levels of society and in all sorts of transactions, for instance the payment of wages, or buying and selling goods. Late medieval records are full of notes about income and expenditure in cash, implying a significant growth in its use during this period.⁹⁶ However, it is difficult to compare this information with similar transactions from an earlier period in the absence of written sources. The possibility that there was a decline in the circulation of cash is suggested by the number of single finds that have been discovered. As thirteenth- and fourteenth-century *penninge* were minted from debased

⁹⁴ Michael North, *Geldumlauf und Wirtschaftskonjunktur im südlichen Ostseeraum an der Wende zur Neuzeit (1440–1570)*. *Untersuchungen zur Wirtschaftsgeschichte am Beispiel des Großen Lübecker Münzfunde und der schriftlichen Überlieferung* (Sigmaringen, 1990).

⁹⁵ North, *Geldumlauf und Wirtschaftskonjunktur*.

⁹⁶ Dahlerup, *Politikens og Gyldendals Danmarkshistorie*, p. 304.

silver, we would expect them to be somewhat over-represented but the analysis of single finds from a number of towns and rural areas shows that a very dramatic reduction in the circulation of coins occurred between 1250–1400 and 1400–1450.⁹⁷ The evidence of coin hoards is of little use in this context. Nonetheless, the combined weight of the 41 treasure hoards known to date from before 1350 is 56 kilos, compared to 10 kilos for the 28 hoards dated 1400–1500. A single piece of evidence, it is true, but one that confirms our assumption that silver coins became scarce during the fifteenth century.⁹⁸

The written sources document a widespread use of money for large and small payments of various types, but they also show that payments in kind remained common. In the fifteenth century and well into the sixteenth century, taxes could be levied according to a tariff that permitted money to be converted into kind or they could be levied in kind in the first place, as so-called “food taxes”. Fines to the crown were often paid in cloth or in cattle.⁹⁹ When large amounts had to be settled, the rural population frequently paid their dues in oxen.¹⁰⁰ We can observe the same mixture of money and goods in commercial payments and loans.¹⁰¹ It seems that cloth from the Netherlands developed into a kind of supplementary form of payment, as testified to by sources dating from the mid-fifteenth century to the first decades of the sixteenth century.¹⁰² In the same period, silver spoons often occur as payments. We must believe that this phenomenon, which differs significantly from the earlier and later periods we have studied, indicates that money substitutes were needed. Even in the market-place, cash could be in

⁹⁷ Poulsen, “Møntbrug i Danmark”, pp. 281–85.

⁹⁸ Jensen, Jørgen Steen, “Monetary Circulation in Denmark c. 1350–c. 1500”, *Nordisk Numismatisk Årsskrift* 1981, 160–170.

⁹⁹ For instance, in 1499 a man from Lemvig paid a fine of 20 marks in Danish money and a piece of Leiden cloth, while in 1522 a peasant from Jutland paid a fine with four oxen and a piece of Leiden cloth. *Rep.*, 2nd ser., 8843; *DMR*, 1st ser., 1, no. 41, p. 176.

¹⁰⁰ In 1532, tenants of the Archbishop of Lund paid “gårdleje” on taking over a new tenancy, as follows: 1) an ox, three *lod* of silver; 2) an ox and 1½ *alen* of cloth from Leiden; 3) an ox; 4) five marks; 5) five marks; 6) two marks and a silver spoon. Ingeman, *Ærkebispesædets godsadministration*, p. 114.

¹⁰¹ In 1501, a nobleman from Jutland had a debt registered as 71 Rhenish *guldens*, 25 marks in Danish money and three pieces of Leiden cloth. In the same year, a house in Køge was sold for the price of 20 marks of silver and four *alen* of cloth from Deventer. *Rep.*, 2nd. ser., 9383, 9938.

¹⁰² Bjørn Poulsen, “Krydderier og klæde. Statusforbrug i senmiddelalderens Danmark”, in *Danmark og Europa i senmiddelalderen*, eds. Per Ingeman and Bjørn Poulsen (Århus, 2000), pp. 64–94.

short supply and we sometimes see the same mixture of payments in cash and kind that characterized larger transactions.¹⁰³

There is a considerable quantity of evidence to suggest that fifteenth-century Denmark, like northern Germany, was marked by a shortage of silver and coins. The situation was probably most evident from the second half of the fifteenth century onwards but need not indicate a relative decline in the amount of money in circulation. It should perhaps rather be seen as a sign of economic recovery. The decline in cash that we see from around 1390 probably did not put a stop to the circulation of money overnight, because the population had become smaller. However, in a situation marked by economic and urban growth, this lack of precious metals perhaps necessitated alternative possibilities of payment, while also limiting ongoing trade if ways of transferring money without cash, such as the use of credit, were not developed.

¹⁰³ *Aktstykker vedkommende Staden og Stiftet Aarhus*, ed. J. R. Hübertz (Århus, 1845), pp. 32–33.

COMMODITY TRADE

Commerce was an integrated part economy and culture many centuries before the beginning of the period focused upon in this book. Roman coins, pottery, and other articles, cloth for example, found in Denmark suggest that commercial relations with the outside world were established as early as the first centuries A.D.¹ From the eighth century Ribe, situated on the west coast of Jutland, was the northernmost Friesian trading centre, and, in the centuries before 1000, Hedeby (*Haiðhabu*) on the east coast was a nexus of north European trade and the transit of goods from the Baltic to the North Sea. In both these towns there is also early evidence of crafts and local trade, as indeed there is in other, less important, Danish commercial centres, such as the settlement at Lake Tissø in Sealand.²

From the 890s onwards Danish coin hoards contain large numbers of silver *dirhams* minted in Bukhara, Sarmarkand, Tashkent, and other central Asian towns by the Samanid rulers of these Muslim regions and used by merchants plying the Volga and the Dnieper.³ These rivers were frequented by Scandinavian *Rus*, as we know from the Arab traveller Ibn Fadlan, who vividly described his encounter with these exotic people at the trading post of Bulgar on the banks of the Volga in May 922.⁴ Finds of silk, pottery, glass, combs, etc., in Denmark confirm that commercial links with Byzantium existed, while the discovery of a copper kettle, presumably of Arab origin, at Gevninge, west of Roskilde, supports the idea of some commercial intercourse with the Muslim world in the centuries before 1000.⁵ Seen in this historic

¹ Lotte Hedeager, *Gyldendal og Politikens Danmarkshistorie*, vol. 2 (Copenhagen, 1988), pp. 151–162, 213–217; Lise Bender Jørgensen, *North European Textiles until AD 1000* (Århus, 1992).

² See note 1 in chapter on “Manors”.

³ Inge Skovgaard-Petersen et al., *Danmarks Historie*, vol. 1, pp. 129–132.

⁴ A. Zeki Validi Togan, “Ibn Fadlan’s Reisebericht”, *Abhandlungen für die Kunde des Morgenlandes*, vol. 24, no. 3 (Leipzig, 1939).

⁵ Mette Iversen et al., *Mammen: grav, kunst og samfund i vikingetiden*, Jysk Arkæologisk Selskabs skrifter 28 (1991); Mats Roslund, “Crumbs from the Rich Man’s Table. Byzantine Finds in Lund and Sigtuna c. 980–1260”, in *Visions of the Past. Trends and Traditions in Swedish Medieval Archaeology*, eds. H. Anderson and P. Carelli. (Stockholm, 1997), pp. 239–297; Anne Hedeager Krag, “Byzantinske forbindelser på Falster i vikingetid og

context it is perhaps unjustifiable to speak of a commercialization of society in the High Middle Ages. As in the rest of northern Europe, commercial activities in the territory inhabited by the so-called *Dani* had existed in various forms since prehistoric times side by side with other types of exchange, such as tribute and gifts. In that respect the Middle Ages did not experience a transition from a natural economy to a market economy.

Transportation and the professionalization of trade

It can hardly be doubted, however, that commodity exchange expanded after 1000, particularly in the twelfth and thirteenth centuries. From these centuries we have a proliferation of written sources for the study of commerce and indeed for the study of Danish history in general. These documents testified to the advance of literary culture but they also furnish convincing evidence that a commodity trade did develop. The infrastructure already in place in the lands of the Danes is thus highlighted by Adam of Bremen in his history of the Archbishops of Hamburg-Bremen, compiled in the 1070s. Adam, who probably never visited these locations himself, estimates the travelling time from Schleswig (the former Hedeby) in the south to Aalborg in the north of Jutland as five to seven days.⁶ In the mid-twelfth century this route is described in more detail by the Icelandic, Nikulás Bergsson, a Benedictine abbot, in his pilgrim guide to Rome and Jerusalem.⁷ Bergsson sailed from Iceland via Norway to Aalborg and continued on foot to Viborg, a distance of 75 kilometres which he covered in two days. His journey from Viborg to Schleswig was made in seven days and it took him another day to reach the River Eider. This route was also an important commercial link, not least for the export of oxen, a point to which we shall return later. It went from Viborg to Nørre-Snede and crossed the watershed between the sources of two major streams in Jutland: Gudenå

tidlig middelalder”, *Årbog. Lolland-Falsters Historiske Samfund* 93 (2005), 5–18. Information about the copper kettle has kindly been provided by Roskilde Museum: nothing has yet been published on this artefact.

⁶ *AB*, I, p. 227.

⁷ Janus Møller Jensen, “Vejen til Jerusalem. Danmark og pilgrimsvejen til Det Hellige Land i det 12. århundrede: En islandsk vejviser”, in *Ett Annat 1100-tal. Individ, kollektiv og kulturella mönster i medeltidens Danmark*, eds. Peter Carelli et al., (Stockholm, 2004), pp. 284–337.

and Skjernå. The route then turned east to Jelling before winding back westwards to the crossing of a stream called Kongeå. From this crossing it meandered east and passed close by Aabenraa and then south-west of Flensburg before reaching Hedeby/Schleswig.⁸

The provincial Law of Jutland, written in the mid-thirteenth century, states that every village must be accessed by four roads, and that it was prohibited for anyone to block roads leading to market towns, *things*, beaches, or woods.⁹ In Scania the roads radiated from the town of Lund southwest towards Skanør, northeast in the direction of Åhus and southeast to Simrishamn. In Funen the roads radiated from Odense, while in Sealand the centre of the road system was Roskilde. As noted briefly above, overland transportation was important for the export of oxen in the Late Middle Ages, but it was even more crucial to local trade. It was normal for peasants to cart their produce to the nearest market or town, regardless of whether this was 15 to 20 kilometres away or more than 50 kilometres, and the use of horse and cart increased in the Late Middle Ages. Flensburg and Husum in Schleswig, for instance, served a large catchment area in this period: peasants brought their products to Flensburg from as far away as the isle of Als, while those living in the marshes of Ditmarschen on the west coast frequented Husum. Similarly, the town of Haderslev was served by a large area.¹⁰

Overland transport was difficult and expensive, however. Streams and wetlands formed serious barriers, and attempts to bypass these hindrances made the roads long and tortuous. On the other hand, the construction of roads and bridges to overcome these obstacles demanded a great deal of organization and obviously absorbed massive economic resources.¹¹ The Law of Jutland decreed that villagers were

⁸ Hugo Matthiessen, *Hørvejen* (Copenhagen, 1930); Henrik Becker-Christensen, *Hørvejen i Sønderjylland—et vejhistorisk studie. Fra Kongeå til Danevirke* (Aabenraa, 1982).

⁹ "The Law of Jutland", vol. 1, chap. 56, *DGLK*. Today four roads still lead to most of the villages on the island of Falster. Fritz Hastrup, *Danske landsbytyper. En geografisk analyse* (Århus, 1964), p. 16.

¹⁰ *DMA*, p. 134; Poulsen, *Land. By. Marked*, pp. 105–106; Poulsen, "Land og by i senmiddelalderen", in *Danmark i Senmiddelalderen*, eds. Per Ingesman and Jens Villiam Jensen (Århus, 1994), pp. 214–217; Poulsen, "Agricultural Technology in Medieval Denmark", pp. 115–145.

¹¹ For example, in the mid-thirteenth century at least five stone bridges were built in northern Jutland. Jens Velløv, "Kong Eriks stenbro, træbroer og arkæologi", *Brant: Nordiske Vejhistoriske Studier* 1, (1996), pp. 63–86.

responsible for the maintenance of public roads within the land owned by their villages. If marsh, moor, or great streams rendered a local road impassable, the entire parish through which it passed was responsible for building a bridge; in the case of a main road this obligation fell on the whole district. The law prescribed the death penalty for highway robbery and stipulated that a main road should be fourteen *alen* wide, i.e. about 28 feet.¹² Although the responsibility for constructing and maintaining public roads and bridges was imposed on peasants by law, toll roads and bridges became increasingly common, in line with the royal appropriation of certain important elements of the national infrastructure. In some cases these responsibilities were farmed out. For instance, in 1261 the Duke of Jutland and the Counts of Holstein testified to the Bishop of Schleswig's right to half the toll levied for the use of the bridge at Rendsburg.¹³

In the Middle Ages carriage by sea was cheaper than road transportation and, when possible at all, far more convenient. Consequently, from the thirteenth and fourteenth centuries onwards many markets and the majority of market towns were established on the coast, accounting for about three-quarters of the 100 or more market towns then in existence.¹⁴ A position close to the waterways meant quite simply lower transportation costs and cheaper prices.¹⁵ Small vessels were an important means of transportation. Navigation in the narrow and off-shore waters of the inlets and bays, where a number of market towns were located, was only possible by this means. Small cargo ships were essential too for intermediate journeys, for example trade crossing the Baltic Sea between the south Danish isles and the north German towns. Around 1400 most of the goods exported to Lübeck from the Scania markets and other parts of Denmark were carried on small craft.¹⁶

Writing in the late eleventh century, Adam of Bremen also describes coastal and local sea routes and the possibility of sailing, for instance,

¹² "The Law of Jutland", vol. 1, chapter 56; vol. 3, chapter 67, *DGLK*.

¹³ *DD*, 2.1, no. 344; *KLNM*, 2, col. 253–254; Else Roesdahl and Poul Grønder-Hansen, "Samfærdsel, handel og penge", in *Dagligliv i Danmarks middelalder. En arkæologisk kulturhistorie*, ed. Else Roesdahl (Copenhagen, 1999), pp. 178–182.

¹⁴ See chapter on "Towns and Markets".

¹⁵ Jan Bill et al., *Dansk Søfarts*, pp. 116–117, 119.

¹⁶ *KLNM*, 16, col. 1–3; Jan Bill et al. *Dansk Søfarts*, pp. 118–120; *Dagligliv i Danmarks Middelalder* (1999), pp. 183–190; Jan Bill, "The Cargo Vessels", in *Cogs, Cargoes, and Commerce*, pp. 92–112.

from Aarhus on the east coast of Jutland to Funen, Sealand, and even Norway. He states correctly that the shortest crossing of the Sound dividing Sealand and Scania was via Helsingborg, but is also concerned with the routes that led to the greater world outside these waters. The principal ports in this respect, notes Adam, were Schleswig on the eastern side and Ribe on the western side of the lower part of the peninsula of Jutland. From Schleswig ships were destined for the Baltic ports and even sailed as far as Greece. Furthermore, from Ribe, which was navigable from the North Sea by a watercourse, Flanders could be reached in 48 hours. Tramp trade operated between Ribe and Prawle, a port in Devon, and the sailing time to England he estimates at 36 hours. From Prawle, Adam records the sailing times to Saint-Mathieu in Brittany, and further afield to Váres near Santiago, Lisbon, Gibraltar, Tarragona, Barcelona, Messina, and St. Jean d'Acre.¹⁷ In other words, he confirms the image of a well-established trading system between the lands of the Danes and the surrounding world, a world which included the Orient and countries bordering the Mediterranean.

Before 1200 sources for the history of maritime trade are very sparse, but nevertheless historians are in general agreement that Scandinavians, Friesians, Russians, and in particular merchants from Gotland dominated north European trade until the German towns, later to become the Hanseatic League, took over from the mid-thirteenth century. This development has been connected with Lübeck as the new nexus in shipping from the Baltic to the North Sea. Before 1200, Lübeck was primarily a port for the transshipment of high-value goods, while from the early thirteenth century the town also became a trading centre for salt from Lüneburg, grain, flour, beer, herring, and stockfish. Transshipment via the Lübeck-Hamburg axis was particularly important in the east-west trade of expensive goods, such as wax, furs, and cloth. It was probably more convenient to ship bulky products *ummeland*, i.e. from the Baltic and the Scandinavian markets round the Skaw and through the Skagerak into the North Sea and vice versa. German merchants took part in the *ummelandsfahrt* from the thirteenth century onwards.¹⁸

¹⁷ *AB*, *Descriptio Insularum Aquilonis*, 1,7, pp. 228–230, 234.

¹⁸ Rolf Hammel-Kiesow, "Lübeck and the Baltic Trade in Bulk Goods for the North Sea Region 1150–1400", in *Cogs, Cargoes, and Commerce*, pp. 53–91.



Map 7. Important trading towns and market places in northern Europe

Before the rise of Lübeck, the towns of Hedeby and (later) Schleswig were the most important ports in northern Europe for the shipment of high-value goods between the east and the west. The commodities were shipped by sea via the Schlei, an inlet on the Baltic Sea close to the town of Schleswig, and then moved overland from Schleswig to Hollingstedt, on the North Sea coast, and vice versa. The importance of this traffic is shown by the layout of the monumental rampart *Dannevirke*, stretching across Jutland from Schleswig to Hollingstedt and protecting this transit route. Schleswig and Ribe were obviously the most prominent trading centres in the Viking Age and the beginning of the Middle Ages, although the Arab traveller al-Tartushi, visiting Hedeby in the tenth century and using its German name, Schleswig, was not impressed. He describes Schleswig as a large but poor town at end of the world.¹⁹ It is in all probability Schleswig that the Novgorod Chronicle refers to when recording the safe return of merchant ships from Denmark in 1130, also noting that some citizens of Novgorod were knocked down in Denmark in 1134. Furthermore, as late as the second part of the twelfth century Saxo writes of Russian merchants being robbed in Schleswig.²⁰ The power of the earliest known Danish kings was based in the southern part of Jutland, and it was in the trading towns of Ribe and Schleswig that the German emperors and the Archbishops of Hamburg-Bremen established the first bishoprics on Danish soil.

The importance of Schleswig even as late as the High Middle Ages is underlined by the fact that the oldest known civic law, parts of which go back to the twelfth century, originated there. In the thirteenth and fourteenth centuries this law was used as a model by other towns, such as Flensburg, Haderslev, and Aabenraa, and also Horsens, Ebeltoft, Aarhus, and Viborg. The emergence of the first merchant guild is also connected with Schleswig. The most well-known and widespread merchant guilds in the Middle Ages, the Guilds of St Cnut, probably had their origin in Schleswig.²¹ More than 30 guilds in Denmark and

¹⁹ Qazwini', translated by Georg Jacob, "Arabische Berichte von Gesandten an germanische Fürstenhöfe aus dem 9. und 10. Jahrhundert", *Quellen zur Deutschen Volkskunde* (Berlin, 1927), p. 29. In the mid-eleventh century Hedeby moved to a new site about two km away and was subsequently known as Schleswig.

²⁰ *Die Erste Novgoroder Chronik, nach ihrer ältesten Redaktion, 1016–1333/1352* (Munich, 1971), pp. 57–58; Saxo, vol. 2, book 14, 17.1, p. 215.

²¹ Christian Radtke, "Kommune og gilde i Slesvig i højmiddelalderen", in *Gilder, lav og broderskaber i middelalderens Danmark*, eds. Lars Bisgaard and Leif Søndergaard (Odense, 2002), pp. 41 ff.

several in Sweden were dedicated to St Cnut, but in some cases it is difficult to know whether the saint referred to is *Sanctus Canutus rex* (d. 1086) or *Sanctus Canutus dux*, killed in 1131. The latter was lord of the town of Schleswig and three years after he was assassinated by Magnus, the son of King Niels, the *Chronicon Roskildense* relates that Niels and his retinue were killed in the town of Schleswig.²² It seems probable that Duke Cnut belonged to, or perhaps was even master of, a guild in Schleswig whose members killed Niels as an act of revenge in 1134.

Some 40 years later Duke Cnut's son, King Valdemar I, joined the Guild of St Cnut, which had been set up by merchants travelling to and from Gotland: this is the earliest known reference in Danish sources to this guild. The document, in which Valdemar declares to join the guild, mentions similar guilds in other Danish towns, and comments on the way that merchants organized themselves into *fraternitas ac societas* when travelling to various parts of the world: in this way they hoped to be able to protect themselves when foreign protection was not feasible.²³ By the second half of the twelfth century the organization of Danish merchants into guilds seems to have been common, but it was not a novelty in a European context. In areas bordering the North Sea guilds set up to protect merchants are known from the Carolingian era. The statutes of the guild originating in St. Omer, Flanders, are the oldest, while Friesian guilds are mentioned on Swedish runic stones. The Danes, as we have seen, were in intimate contact with the Friesians and the Franks from the ninth century onwards, and were in many ways inspired and influenced by these contacts. However, before 1000 the *félæg* is the only known Nordic organization. Such organizations were established either the intentions behind the voyage were to raid or to trade. While members of these organizations were opportunist warriors and traders, they were farmers too.²⁴

The typical Viking ship was a combined rowing and sailing vessel suited for either *kaupferd* or *viking*. It was navigable in adverse winds and of course the numerous rowers needed to propel the ship were useful in other respects. They could protect the vessel and its cargo and formed the attacking force when looting was afoot. In contrast the medieval freighter was exclusively a sailing ship requiring a smaller crew: its

²² *SM*, 1, p. 29.

²³ *DD*, 1.3, no. 63

²⁴ *KLNM*, 4, col. 212–213; Carsten Müller-Boysen, *Kaufmannsschutz und Handelsrecht im frühmittelalterlichen Nordeuropa* (Neumünster, 1990).

greatest advantage was that its construction was not limited by the need to find bench room for oarsmen. Wider and higher vessels could thus be built, making ships more seaworthy and able to carry more cargo. The other side of the coin was that sailing ships were useless for raids because they were less easy to manoeuvre and completely dependent on fair wind. In warfare they could only be used as supply ships or floating fortresses.

The non-oared sailing ship was a cargo vessel. The oldest archaeological finds of this type of ship in Denmark date from the first half of the eleventh century. They are clinker-built vessels in the Nordic Viking tradition, loading from 20 to 60 tons. Around 1150 the Friesian cog appears among the Danish finds. These vessels had a cargo carrying capacity of 40 to 70 tons. Of the ships of this type that have been uncovered, all but one appear to have been built in Denmark. Cargo vessels are particularly numerous among archaeological finds of twelfth-century ships.²⁵ Around the year 1200 major technical changes made it possible to build larger and cheaper ships that could help reduce the cost of freight. The largest merchant vessels in the Late Middle Ages carried up to 450 tons of cargo, but this was far from a technical limit in terms of size: contemporary Danish naval ships were probably twice this size. Nevertheless, constructional changes increased cargo capacities, which grew steadily in the Middle Ages, while the rise of commercial tonnage was also supplemented by a growing fleet of small vessels and craft.²⁶

Security and protection were essential for the use of non-oared sailing ships and the growth of cargo vessels. Merchants' fraternities and guilds played an important role in this, and safe conducts could also be sought from princes and kings. It is therefore no great wonder that the spread of medieval cargo vessels coincided with both the emergence of merchant organizations and the establishment of a medieval Danish kingdom. Merchant guilds, the spread of non-oared cargo ships, the growth of cargo vessels, and the emergence of a medieval kingdom of Denmark indicate commercial accumulation and richer, more professional merchants. Commodity exchange increasingly became a trade

²⁵ Anton Englert, "Naves Magnae—Den professionelle søhandels fartøjer", in *Ett Annat 1100-tal. Individ, kollektiv och kulturella mönster i medeltidens Danmark*, eds. Peter Carelli et al., (Stockholm, 2004), pp. 111–117.

²⁶ Bill, "The cargo vessels", in *Cogs, Cargoes, and Commerce*, pp. 92–112; Jan Bill et al., *Dansk Søfarts*, pp. 155–165, 208–217.

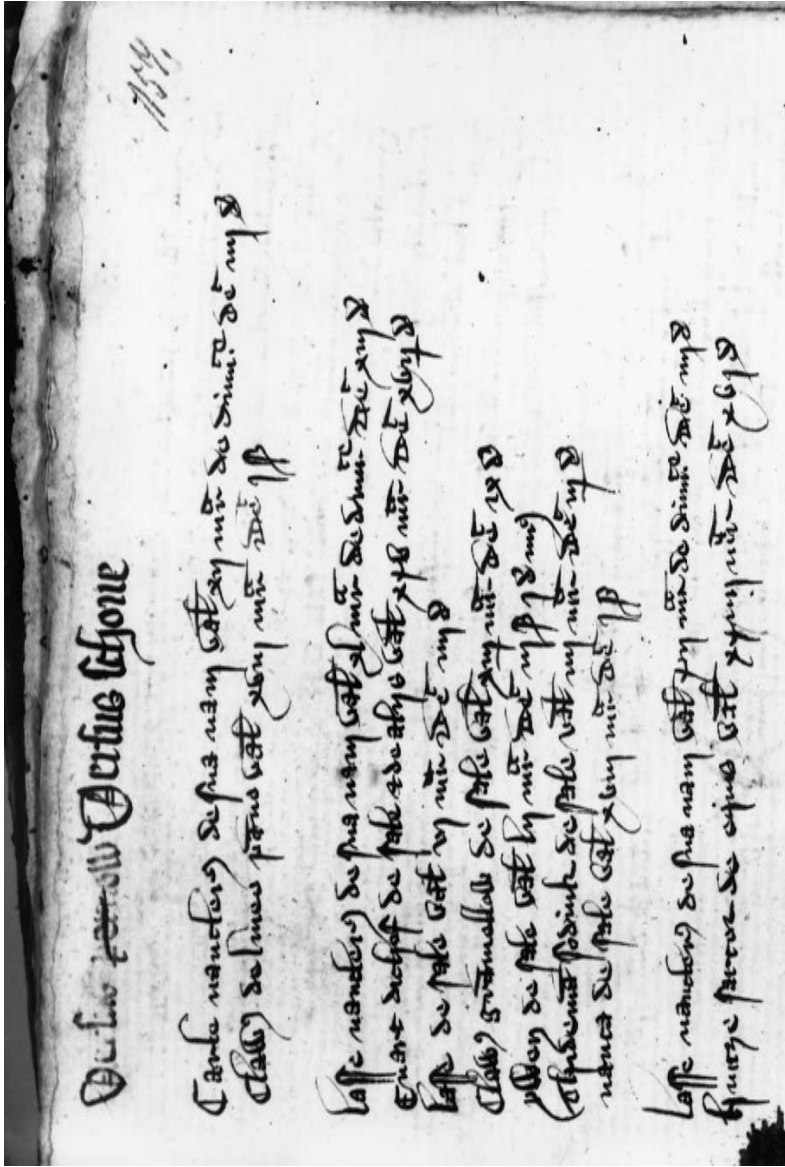
in its own right, quite distinct from military and agricultural occupations. This development as a whole reflects a marked widening of the commodity trade.

The import trade

Unfortunately the custom tariffs in the above-mentioned town laws from Schleswig, the earliest known in Denmark, give no information about the merchandise imported into the town. This information is not available in any of the town laws until the thirteenth century, for example the law of Haderslev, on the east coast of Jutland, which dates from 1292. Agricultural products mentioned in the tariff, such as wheat, rye, barley, oats, malt, flax, sweet gale, cattle, sheep, pigs, horses, butter, meat, tallow, fat, hides, and honey, were presumably obtainable from the locality, and so probably was herring, wood, and beer. An account of the expenses incurred by vassals from Rügen as they travelled across Sealand in 1319 records the victuals for sale in the towns of Ringsted, Næstved, and Vordingborg. Their purchases included Danish beer, cows, bacon, sheep, chicken, oats for fodder, firewood, beef, and mutton. A similar range of local products was available elsewhere in Denmark according to customs tariffs set out other town laws in the thirteenth and fourteenth centuries.²⁷

Of course, the customs tariffs also included commodities imported into the town from more distant places within and without the realm. The quantity of herring imported into Haderslev cannot possibly all have been caught locally: herring was doubtless also imported from the Danish or north German fishing grounds in Scania, the Limfjord, Fehmarn, or Heligoland. Danish sea salt was produced on the isle of Læsø and on the beaches of Halland and western Jutland, but this was far from enough to meet the requirement. Salt was the most important food preservative in the Middle Ages. Evidence of sea salt imported from northern Friesland into Schleswig, Ribe, and the Scania markets exists from around 1200, but the best salt obtainable came from Lüneburg. From around 1200 Lüneburg salt was also imported into Denmark,

²⁷ *DGK*, vol. 1, 1951, pp. 267–276; *D.D.*, 2.8, no. 147; Bjørn Poulsen, “The Widening of Import Trade and Consumption around 1200 A.D.: a Danish Perspective”, in *Cogs, Cargoes, and Commerce*, pp. 32–35.



III. 13. A list from 1368 of the Lübeck skippers visiting Scania and providing details of the vessels, the owners and the quantities of herrings imported into Lübeck from the Scania markets

and half a century later western Europeans visiting the Scania fair probably also brought French salt from Baie de Bourgneuf with them. Baie salt became common in the Baltic region in the Late Middle Ages, but the best quality still came from Lüneburg. The preservation of herring at the Scania markets necessitated a huge quantity of salt. The Lübeck poundage accounts record that in 1368–69 one third of the total export of Lüneburg salt leaving Lübeck, i.e. 20,000–24,000 barrels, was destined for the Scania fairs.²⁸ This probably represented the peak: the import of salt fell from some 3,000 tons in 1368/69 to about 2,000 tons in 1400, but the downturn did not end there. After the decline of herring fishery in the Sound, (see below), the export of salt from Lübeck to the whole of Denmark in 1492 was a mere 1,680–1,750 tons. However, from a Danish perspective this was still a substantial amount, constituting about a third of the total Danish import from Lübeck that year.²⁹

Lead is also shown as a commodity in the Haderslev customs tariff. The country of origin in this case was most likely to have been England. Lead appears regularly on the export side of the English poundage rolls from the first three decades of the fourteenth century: for example, it is one of the commodities exported from Boston in 1303. According to a catalogue recording the origin of imported merchandise, England was the sole supplier of lead to Bruges and Flanders by the end of the thirteenth century.³⁰ On the basis of the Lübeck poundage accounts it has been estimated that the total amount of lead imported to Denmark via Lübeck in the 1490s was valued at about 1,000 Lübeck marks.³¹ In the same period the value of Swedish iron imported via Lübeck was between 2,000 and 3,000 Lübeck marks. In 1292 the iron, steel, and copper imported into Haderslev probably came from Germany and Poland, but Swedish iron and copper were also imported into Denmark

²⁸ Ibid., pp. 46–47; Bjørn Poulsen, “Wirtschaftliche und rechtliche Aspekte des nordfriesischen Salzes im Spätmittelalter und in der frühen Neuzeit”, in *Das Salz in der Rechts- und Handelsgeschichte*, eds. J. C. Hoquet and Rudolf Palme (Schwaz, 1991), pp. 279–292. On the production of salt see also chapter on “Rural Resources”.

²⁹ Poul Enemark, “Salthandel og Norden”, in *Danmark og Europa i Senniddelalderen*, eds. Per Ingesman and Bjørn Poulsen (Aarhus, 2000), pp. 216–226.

³⁰ Public Record Office, London, E. 122, no. 5/7; *Hansisches Urkundenbuch*, vol. 3 (Halle, 1882–6), pp. 419–20; *Cartulaire de l'ancienne Estaple de Bruges*, ed. I. L. Gillodts van Severen (Bruges, 1904).

³¹ Enemark, “Lybæk og Danmark”, table VII, p. 189.

as they were to King's Lynn and Lübeck.³² From the twelfth century iron was produced in the Swedish province of Småland and exported from Kalmar to Denmark, England, and other places in northern Europe. The most important region of Swedish iron production was, however, central Sweden. Iron was also smelted in the northern part of the Danish province of Blekinge and in Schleswig-Holstein. It has been suggested that the number of furnaces in Schleswig-Holstein grew by some 15 per cent from the Viking Age to the High Middle Ages, indicating that domestic production was able to meet some of the national requirement for iron.³³

There is reason to believe that the tar and millstones listed in the Haderslev tariff were foreign imports. Millstones were imported from Norway and the Rhine area.³⁴ In the twelfth century beer was brewed and consumed locally in Denmark and elsewhere, becoming an established commodity in north European trade by c. 1200.³⁵ During the thirteenth and fourteenth centuries the trade in beer changed radically, partly because of technological improvements in beer production. In the thirteenth century German brewers discovered how to maximise the use of hops to improve the keeping quality of beer. Industrial brewing for export began first in Hamburg and Bremen, later in the Baltic towns of Rostock and Wismar.³⁶ German beer became a serious competitor to local Danish beer. The German merchants visiting Scania in the early thirteenth century probably brought their own beer with them, but it was not until 1316 that the right to sell beer on their premises at markets was granted to them.³⁷ The biographer of Bishop Gunner of Viborg claims that before Gunner died in 1250 Saxon beer

³² P.R.O., E. 122, 93/22. Around 1300 the supply of iron and steel to Flanders came from Germany, while copper was imported from Poland, cf. note 30 above. In 1492 the Lübeck import of iron from Sweden can be valued at between 15,000 and 20,000 Lübeck marks, while the import of Swedish copper amounted to no less than 30,000–40,000 Lübeck marks. Enemark, "Lybæk og Danmark", table 4, p. 186; Wilhelm Koppe, *Lübeck-Stockholmer Handelsgeschichte im 14. Jahrhundert* (Neumünster, 1933).

³³ Poulsen, "The Widening", pp. 45–46. On the production of iron see chapter on "Rural Resources".

³⁴ Peter Carelli and P. Kresten, "Give us this day our daily bread. A study of Late Viking Age and early medieval quernstones in South Scandinavia", *Acta Archaeologica*, vol. 68 (Copenhagen, 1997), 109–137.

³⁵ Erik Kjørsgaard, *Mad og øl i Danmarks Middelalder* (Copenhagen, 1978), pp. 84–99.

³⁶ Richard Unger, "Beer: a New Bulk Good of International Trade", in *Cogs, Cargoes, and Commerce*, pp. 113–127.

³⁷ DD 2.7, no. 373 paragraph 13; *KLNM*, 20, col. 703–704.

had not yet reached Denmark and that when it did, very few people liked it.³⁸ In other words German beer was known in Denmark from the mid-thirteenth century or earlier. Over the next three decades the increasing import of German beer seems to have put a growing strain on Danish brewers and beer-vendors. In 1281 Bishop Ivar of Roskilde gave the bailiff and aldermen of Copenhagen authority to fix weights and measures 'and particularly the measure of travebeer or German beer'.³⁹ Only two years later, in 1283, King Erik Glipping forbade the sale and consumption of German beer, while 'anyone who will brew good beer is allowed to sell it at the highest price he can get for it'.⁴⁰ However, the ban had little effect, at least in the long run. We do not know whether it is Danish or German beer that is referred to in the customs tariffs from Haderslev (1292) and Flensburg (1300), but the town law of Aabenraa, dating from 1335, mentions the importers of travebeer and German beer.

From then on still more references to the import and consumption of German beer can be found in the sources. In the thirteenth century, beer from breweries in Lübeck, Rostock, Wismar, and Stralsund dominated the import market, while beer from breweries in Einbeck and Hamburg gained a foothold in the late fifteenth century. It is not possible to estimate the total import of German beer, but the Lübeck poundage accounts record that in the 1490s beer at a value of 500 to 1000 Lübeck marks was imported into Denmark via that port.⁴¹ It has also been computed from two similar accounts that some 100,000 to 125,000 litres of beer were imported into Aalborg in 1517–18. Beer was obviously a significant import commodity in the Late Middle Ages, but there is no doubt that the home market for Danish beer was even more important.⁴² In fact, even at the very end of the Middle Ages the import of hops for brewing was still considerably greater than the import of beer. In the 1490s hops to the value of some 1,000 to 1,500 Lübeck marks were imported from Lübeck.⁴³

³⁸ "Vita Gunneri Episcopi Vibergensis", *SM*, vol. 2 (1918–20; repr. Copenhagen 1970), p. 272.

³⁹ *DD*, 2.3, no. 5. Travebeer was the name of the beer brewed in Lübeck, which lies on the River Trave.

⁴⁰ "King Erik Glipping's Helsingborg Ordinance of 1283," chap. 2, *DDR*, 1, p. 105.

⁴¹ Enemark, "Lybæk og Danmark", table 7, p. 189.

⁴² *KLNM*, 20, col. 704–710.

⁴³ Enemark, "Lybæk og Danmark", table 7, p. 189.

Cloth was the single most important commodity in international trade in the Middle Ages. As noted above, silk and cloth have been imported into Denmark since prehistoric times. Nevertheless, according to the chronicler Saxo writing around 1200, contemporaries viewed as provocative an episode that had occurred some 80 years earlier, when Duke Cnut Lavard reputedly attended a wedding dressed in foreign purple robes, and not in the customary sheepskin coats.⁴⁴ Saxo's contemporary, Arnold of Lübeck, observed as a novelty that the Danes wore linen and scarlet and purple cloth. These statements perhaps imply that around 1200 fine imported cloth was still exceptional. Two testaments, dated 1261 and 1293, indicate that fine imported cloth was a costly commodity even for the aristocracy.⁴⁵ Notwithstanding the expense, foreign cloth seems to have been quite common on the Danish market in the thirteenth century.

The laws of Copenhagen (1254 and 1294), Haderslev (1292), Flensburg (c. 1300), and Aabenraa (1335) prohibited the retail of foreign cloth in these towns, but an exception was made for the Scania market. A confirmation of the privileges granted to the citizens of Lübeck upheld the right of merchants from that city (or anywhere else for that matter) to sell cloth by the yard from their booths or from locations where the cutting out of cloth was customary from time immemorial.⁴⁶ Information about the country of origin of various imports is contained in a law issued by King Erik VI Menved in 1304 fixing the price of cloth from Ghent, Ypres, Aardenburg, Bruges, Poperinghen, Nivelles, Tournai, Flanders, and Antwerp. This law also banned the retail of cloth from England and Brabant without royal permission or the presence of the bailiff and aldermen.⁴⁷ The export of English cloth to Denmark appears to be confirmed by the English poundage rolls: on 16 September 1310, for example, Jacobus de Ribe exported English cloth (*pannus anglicanus*) from Boston and five pieces of cloth from Beverley at a total value of , 3.⁴⁸

⁴⁴ Saxo, book 13, 5,4.

⁴⁵ *DD*, 2.1, no. 33; 2.4, no. 67; Poulsen, "The Widening", p. 38.

⁴⁶ *DD*, 2.1, no. 50; 2.4, no. 121; 3.1, no. 215; *DGK*, vol. 1, pp. 273, 119; Poulsen, "The Widening", p. 40.

⁴⁷ *DD*, 2.5, no. 310.

⁴⁸ P.R.O., E. 122, 6/8.

Imported foreign cloth was costly. Even the prices for imported foreign cloth stipulated by King Erik Menved in 1304 were high.⁴⁹ The figures recorded by the Lübeck merchants Hermann and Johann Wittenborg and Vicko von Geldersen reveal that prices for the coloured foreign cloth sold at Ribe, Flensburg, Schleswig, and at the Scania fairs were still high in the second part of the fourteenth century. Doubtless the foreign cloth imported into Denmark in the High Middle Ages was sold exclusively to the nobility and the wealthier burgesses: cloth was also woven or bought by common people but they had to be content with homespun and linen.⁵⁰

On the basis of archaeological finds of lead seals used for sealing cloth and testifying to its place of origin, combined with studies of written sources, it can be established that most imported cloth came from the many well-known cloth producing towns in the Netherlands. However, cloth was also imported from England, north Germany, and, in the Late Middle Ages, the Prussian town of Elbing. These studies of cloth seals suggest that their import increased in the last two centuries of the Middle Ages. Thus, the majority of relatively few datable seals that have been found are from the fifteenth century and later.⁵¹ Another indication of the increasing import of cloth during the latter part of the Middle Ages is that the use of foreign cloth was extended to include the lower strata of society. In 1491 King Hans passed a law stipulating that the common people of Scania were not to buy cloth that was more expensive than *mædelbusk*, *deventertyrst*, *alst* or *nærst*, i.e. cloth from Middelburg in Zeeland, Deventer, Aalst in Flanders, or Naarden.⁵² In other words the common people were indeed buying imported foreign cloth which was at times even more expensive than the types specified by the king. This deduction can be substantiated by a variety of sources from the late fifteenth and first half of the sixteenth centuries, revealing that peasants throughout the country bought, owned, and even traded cloth.⁵³ On the basis of the customs account from Gottorp and the poundage accounts from Lubeck it has been estimated that the value of the cloth import in the 1490s was 28,000 to 50,000 Lübeck marks.⁵⁴

⁴⁹ The price of one *alen* (approx. 2 feet) of cloth varies from 1 Danish mark to 8 ørtug. *DD*, 2.5, no. 310.

⁵⁰ Poulsen, "The Widening", pp. 40–41.

⁵¹ Jette Orduna, *Middelalderlige klædeplomber* (Højbjerg, 1995), pp. 91–93, 102–130.

⁵² *Rep.*, 1.1, no. 6936.

⁵³ Poulsen, "Krydderier", pp. 81–88.

⁵⁴ Poul Enemark, "Lybæk og Danmark", tables 5:3 and 7, pp. 187, 189.

The total import was, of course, even greater. Cloth was also imported direct from the Netherlands, England, and Hamburg.

Lime is the only building material mentioned in the customs tariff set out in the Haderslev town law of 1292. Lime was used for mortar manufacture from the twelfth century, when the first stone churches and fortifications were built in Denmark. The earliest lime kiln to be uncovered is from Archbishop Eskil's castle at Søborg in northern Sealand. This lime kiln has been dated to the years 1110–1210.⁵⁵ Limestone covers the major part of the Danish subsoil. It lies on the surface at Bulbjerg in north-western Jutland, at Stevns on eastern Sealand, and on the islands of Møn and Bornholm. Danish lime could therefore presumably be bought quite easily, but large quantities of burnt and unburnt limestone for mortar manufacture were probably exported from Gotland and some of this might well have found its way to Danish ports.⁵⁶

Written sources and archaeological evidence indicate that during the eleventh century stone churches were built in the towns of Roskilde, Ringsted, Slagelse, Lund, Dalby, and Århus, while some village churches might also have been constructed of stone at this early date. However, stone churches only really became common in the twelfth century, replacing timber as the principal building material. Most stones came from within one or two kilometres of the building sites, but some places stones were imported. This was particularly true in south-west Jutland around the town of Ribe, where a massive import of stone took place in the Middle Ages. Tufa from Andernach, Weser limestone from Porta Westphalica, and trachyte from Drachenfels on the Rhine have been identified as building materials used in certain Danish churches. The stones were shipped down the Rhine to Deventer and Utrecht, where they were sold and used, among other things, to build hundreds of parish churches in Friesland from the estuary of the Schelde in Flanders to Ribe on the west coast of Jutland. From the last quarter of the

⁵⁵ Niels Liebgott, *Dansk Middelalderarkæologi* (Copenhagen, 1989), p. 267; Birgit Als Hansen, "Middelalderlige teglovne—med udgangspunkt i de seneste års fund", *Bygningsarkæologiske Studier*, eds. Hans Henrik Engqvist et al. (Copenhagen, 1985), p. 9.

⁵⁶ Lars Berggren, "The export of limestone and limestone fonts", in *Cogs, Cargoes, and Commerce*, p. 179.

twelfth century to the middle of the thirteenth century, 55 churches in south-western Denmark were built wholly or partly of tufa from Andernach.⁵⁷

Imported stone was also used in church buildings in Sealand. The churches at Kalundborg and Fjenneslev each have four granite pillars that are probably of foreign origin, while the church at Ledøje has four pillars made of Belgian limestone, granite, and gneiss or Rhine limestone.⁵⁸ Imported Roman travertine marble was used on the founders' graves at Roskilde Cathedral.⁵⁹ Stone products such as baptismal fonts, headstones, and a variety of architectural ornaments for churches were imported from Belgium and the Rhine area and particularly from Gotland. A stone-carving industry developed in this area from the late twelfth century. The first fonts exported from Gotland went to Denmark. During the next two centuries Gotlandic stone products were exported to destinations as far apart as Bergen, Tartu, Umeå, Wilamów, and Bruges, but Denmark was one of the principal markets. For this reason, Gotlandic baptismal fonts can be found in a great number of Danish medieval churches especially in the eastern and southern parts of the realm.⁶⁰

Timber was the principal building material used in both countryside and town. Farmhouses were built on light wooden structures that made it possible to move the buildings. It appears to have been a matter of dispute as to whether leaseholders should take the wooden constructions of their houses with them or not when they gave up their leases and moved.⁶¹ Denmark was not particularly short of timber in the Middle Ages and imports were never really large-scale, but some import there certainly was. In the Late Middle Ages evidence of the import of Norwegian timber begins to flow from the sources and the demand was also

⁵⁷ *KLNM*, 17, col. 144–146; Berggren, “The export of limestone”, pp. 144–145; Bill et al., *Dansk Søfarts*, p. 145; Hermann Haiduck, *Beginn und Entwicklung des Kirchenbaues im Küstengebiet zwischen Ems- und Wesermündung bis zum Anfang des 13. Jahrhunderts* (Aurich, 1992).

⁵⁸ *Danmarks kirker, Københavns Amt*, eds. E. Moltke, Elna Møller and C. G. Schulz (Copenhagen, 1944), p. 576; *ibid*, *Sorø Amt*, vol. 1, eds. Victor Hermansen and Poul Nørlund (Copenhagen, 1936), p. 326.; H. Dehn-Nielsen, *Kirker og klostre i Danmark* (Copenhagen, 1995), p. 98; Kristina Josefson, “Sökandet efter en personlighet. Absalon och hans tid”, in *Ett Annat 1100-Tal. Individ, kollektiv och kulturella mönster i medeltidens Danmark*, eds. Carelli et al. (Stockholm, 2004), pp. 236–237.

⁵⁹ *KLNM*, 17, col. 146.

⁶⁰ Berggren, “The export of limestone,” fig. 18, pp. 163–167.

⁶¹ “Anders Sunesen’s paraphrase of the Law of Scania”, chap. 143–149, vol. 1, 2, *DGLK*.

met by the import of Prussian timber.⁶² Timber from Pomerania, Prussia, central Germany, central Sweden, and the Mediterranean region has been detected in medieval buildings at Svendborg, as have roofing tiles from Lübeck. Medieval roofing tiles bearing the Lübeck stamp are commonly found in Denmark.⁶³ The import of tiles took place even though domestic tile burning was common. Several brick kilns have been excavated, often lying close to the building being erected.⁶⁴

Wine and spices were crucial commodities in Europe throughout the Middle Ages. Spices were essential in the trade between the Orient and Europe and wine became even more important in the trade north of the Alps. It is perhaps surprising that these goods are not found in the customs tariff from Haderslev (1292). It is not possible to establish the beginning of the spice trade in Denmark, but foreign spices were probably known and imported by Danish pilgrims from the eleventh century onwards and were certainly brought in by monks, who also cultivated spices in their herbaria. One of the first real signs of the Danish trade in spices appears in an account book belonging to the Lübeck merchant Johan Wittenborg. Wittenborg sold pepper, ginger, and nutmeg at the Scania fairs in 1353 and 1358. The serving of wine is referred to in the town laws of Schleswig (c. 1200) and Ribe (1269).⁶⁵ Wine was both sold and consumed at the Scania fairs. In 1316 German merchants from Stralsund attending the fair were granted the right to 'serve their wine and beer to each other'. Ten years later they were licensed to serve and sell wine, and in the same year the merchants from Haderwijk, Zutphen, Staveren, and Kampen were permitted to 'sell the wine they had imported'.⁶⁶

Spices and wine were also traded by Danish merchants in the Late Middle Ages. According to an account from Flensburg Castle dating from 1452, wine and spices were bought from four local merchants, and five years earlier the king had bought almonds, figs and raisins, rice, and pepper from local merchants in Copenhagen. Similarly, in the mid-1480s, the knight Iver Axelsen bought saffron, pepper, cumin, raisins,

⁶² *KLNM*, 18, col. 589–594.

⁶³ Thomas S. Bartholin, "Træfundene fra Svendborg", *Naturens Verden*, (1973), pp. 222–224; Henrik M. Jansen, "Svendborg in the Middle Ages—an Interdisciplinary Investigation", *Journal of Danish Archaeology* 6 (Odense, 1987), pp. 210–213; Roesdahl, "Samfærdsel", pp. 214–217.

⁶⁴ See note 57.

⁶⁵ *DGK*, vol. 1, p. 10; vol. 2, p. 12.

⁶⁶ *DD*, 2.7, no. 398; 2.9, nos. 311, 312, 313, 314, 324.

figs, almonds, and wine locally in Visby. From the 1490s onwards there is evidence that mace was bought in Kolding; mace, ginger, and nutmeg in Aalborg; ginger and saffron in Kalundborg; and raisins and almonds in Malmø.⁶⁷ Nonetheless, a number of luxury articles mentioned in fifteenth- and early sixteenth-century account books from royal and noble households were purchased abroad. In the sixteenth century the king even had an agent in Antwerp who procured cloth, spices, dyes, tiles, etc., for the royal household. The agent's account lists saffron, cloves, ginger, pepper, cinnamon, mace, nutmeg, almonds, rice, gelatine, sandalwood, olives, currants, damsons, lemons, capers, oil, vinegar, and sugar.⁶⁸ Purchases of spices for the royal Danish household in various north European commercial centres are also known from the fifteenth century. The nobility also imported goods direct.

The trade in wine and spices was probably not very important even in the Late Middle Ages, with most of these commodities being reserved for special occasions. Besides communion wine, the only wine drunk at the castle in Flensburg on a daily basis was the pot of wine the king enjoyed before he went hunting. This assumption is confirmed by the Lübeck poundage accounts dated 1492–96, which record the goods exported from that port to Assens, Bornholm, Falsterbo, Funen, Haderslev, Horsens, Køge, Landskrona, Lolland, Malmø, Nakskov, Schleswig, Ystad, Århus, and Copenhagen.⁶⁹ The import to the latter included neither spices nor wine. The only slight indication that these articles were exported to other Danish locations is a reference to two barrels of so-called *kram*. These barrels might well have contained spices, along with other small items, like cloth, leather goods, paper, knives, etc., but they do not indicate a substantial import.⁷⁰ On the other hand we must again bear in mind the fact that Lübeck was not the only foreign city to export commodities to the Danish market: as we have seen, certain towns in the Netherlands also attracted buyers from Denmark in the Late Middle Ages.

Apart from spices, wine, and beer, few victuals were brought into the country. Grain was probably imported in periods of scarcity, for

⁶⁷ Poulsen, "Krydderier", pp. 69–81.

⁶⁸ *DMR*, vol. 1.1, pp. 242–246.

⁶⁹ Hans-Jürgen Vogtherr, *Die Lübecker Pfundzollbücher 1492–1496*, vols. 1–4, *Quellen und Darstellungen zur Hansischen Geschichte*, N.F. 41 (Cologne, 1996); Bjørn Poulsen, "Krydderier", pp. 67–68.

⁷⁰ *KLNM*, 9, col. 240–244.

example in 1224, when the Henry III of England exempted Denmark, among other countries, from an export ban on grain, and in the 1260s, when the Cistercian Abbot Ture sent men to north Germany to buy grain.⁷¹ Imports mainly consisted of luxury products and raw materials associated with religious and/or prestige building. Only three articles of imported food are significant: salt, beer, and hops for brewing. The import of salt was substantial, but this declined in the Late Middle Ages. On the other hand the import of beer and hops increased towards the end of the Middle Ages, as did the import of timber. Import of the all-important foreign cloth also rose in the Late Middle Ages.

The export trade

The variety of merchandise exported from Denmark was not nearly as extensive as the commodities imported into the country. A catalogue from the thirteenth century detailing the origin of merchandise imported into Bruges and Flanders lists horses, bacon, herring, tallow, fat, and butter as coming from Denmark.⁷² With the exception of grain these are the same kind of goods as those mentioned in tariffs from Ribe showing export duties levied in 1271, 1283, and 1293.⁷³ The catalogue recording the import to Bruges and Flanders refers exclusively to *Alemaingne* as the supplier of grain.⁷⁴ The export of grain from Denmark was rarely significant in the Middle Ages. Although, as we have seen in the chapter on marine resources, the greater part of Denmark produced grain, this was chiefly for domestic consumption. The rare indications in the sources that grain was exported, other than the above-mentioned customs tariffs from Ribe, are the result of extraordinary circumstances, such as high prices, crop failure, and famine. Denmark never played a role as the supplier of grain on the great urban markets of northern

⁷¹ *DD*, 1.6, no. 28; *SM*, 2, p. 238.

⁷² The catalogue is undated. The fact that it mentions France, Poitou, and Gascony separately suggest that it predates the reconquest of Poitou by Philip II Augustus and Louis VII of France in the early thirteenth century. On the other hand, the contacts with Mediterranean realms mentioned in the catalogue speak for a later dating, because it was at the end of the thirteenth century that navigation from the Mediterranean and out through the Straits of Gibraltar became common. *HU*, vol. 3, pp. 419–420.

⁷³ *DD*, 2.2, no. 162; 2.3, no. 67; 2.4, no. 111.

⁷⁴ The Low Countries undoubtedly imported grain from northern France at a very early date, while in the thirteenth century France seems to have been the most important supplier to Flanders. Hybel, "The grain trade", pp. 219–247.

Germany, western Norway, the Low Countries, and eastern England.⁷⁵ Almost the same can be said of iron. The iron produced in eastern and south-western Denmark was apparently not exported to Flanders, and for good reason. Better quality and cheaper iron and steel could be imported from Sweden via Germany and indeed these imports to Flanders are also recorded in the catalogue.

Herring was arguably the most vital of all food products to be exported from Denmark in the High Middle Ages. Fish, as is commonly known, comprised an important part of the medieval diet, partly because of the ritual fasting imposed by the Church. Stockfish and herring were imported to England from western Norway and Bohuslen, which lies on the Oslo Fjord. Furthermore, these areas of Norway exported to continental Europe, which was also supplied with herring from the English Yorkshire coast, the waters around the islands of Rügen in the Baltic, and Heligoland in the North Sea, as well as from the Limfjord and the region around the Sound.⁷⁶

Rügen was conquered in 1168⁷⁷ and was under Danish rule until 1325, when it was ruled by Pomerania. The catches from Rügen were never an essential part of the domestic supply in other areas of Denmark. The export of herring from Rügen was restricted to Lübeck, whence Lüneburg salt was shipped back to Rugen, to Stettin, Kolberg, and Strallsund during the century and a half of Danish rule.⁷⁸ From the point of view of national economy the Rügen herring fishery was never really important. The most important Danish fishing grounds lay in the Sound between Scania and Sealand. The great autumn catches in the Sound are mentioned by Saxo around 1200 and according to his contemporary, the German chronicler Arnold of Lübeck, herring could literally be scooped up in these waters. Arnold claimed that this 'silver of the sea' underlay the prosperity of the Danes because

⁷⁵ Nils Hybel, "Dansk eksport på det nordeuropæiske marked ca. 1200–1350", in *Danmark og Europa i Senmiddelalderen*, eds. Per Ingesman og Bjørn Poulsen (Århus, 2000), pp. 192–195.

⁷⁶ Arved Nedkvitne, *Utenrikshandelen fra det vestafjelske Norge 1100–1600* (Bergen, 1984); Nils Hybel, "Sildehandel og sildefiskeri i den nordvestlige Nordsø i begyndelsen af det 14. århundrede", in *Søfart, Politik, Identitet*, eds. Hans Jeppesen et al. (Copenhagen, 1996), pp. 27–42; Bjørn Poulsen, "The Herring Fisheries off Heligoland, c. 1330–1550", in *North Atlantic Fisheries. Markets and Modernisation*, eds. Poul Holm and David J. Starkey (Esbjerg, 1998), pp. 7–37; Jahnke, *Das Silber des Meeres*.

⁷⁷ Possibly 1169: the date is disputed. John H. Lind et al., *Danske Korstog*, p. 77.

⁷⁸ Jahnke, *Das Silber des Meeres*, pp. 32–36.

it attracted merchants from all the neighbouring peoples who gave their most cherished possessions and sometime even their lives for this modest commodity.⁷⁹ On the basis of this formidable herring fishery the renowned Scania fairs developed, to become the largest complex of international markets in Scandinavia. In addition to the principal fairs held at Scanor and Falsterbo and at the privileged centres of Malmö and Dragør, urban markets were held at Simrishamn, Ystad, Trelleborg, and Landskrona, as well as in various fishing hamlets, one of which became the location of the future capital: Copenhagen. Herrings and a variety of other merchandise were traded in this multitude of variably-sized markets.

Herring fished from the Sound became a high quality internationally-renowned product and at the peak of the Scania fairs in the fourteenth century they were exported to the whole of northern and central Europe. Salted herring from the Sound are recorded in the travels of German merchants to Finland, the Baltic area, and Russia. The herring were imported to Danzig and floated up the River Vistula to Torun, then on to south-eastern towns like Cracow and Lemberg and even into Hungary. The gateway for the import of herring to Saxony was Stettin and the River Oder, but the principal importer and distributor was Lübeck. In north Germany Lübeck was the centre from which the herring were shipped via the Elbe to Lüneburg and on to Magdeburg, Hanover, Herford, Braunschweig, Erfurt, and other towns. Merchants from the west German towns of Hamburg and Bremen shipped the herring *ummeland*, i.e. around the Skaw then down into the North Sea and along the Rivers Elbe and Weser. The herring fishery on the coast of Yorkshire and at King's Lynn was no hindrance to an English import of herring from the Danish Sound, either by Englishmen themselves or by Germans and Netherlanders visiting the ports on the English North Sea coast. The Netherlanders were among the first merchants to visit the Scania fairs in the early thirteenth century. Until then herring from the Zuiderzee and the Ijsselmeer satisfied market demand in the Netherlands and north-western Germany. Besides supplying the domestic market the interest of the Netherlands merchants, like that of the Germans, was in re-exporting Sound herring to great inland German

⁷⁹ Saxo, Praefatio 2.4; "Arnoldi Chronica Slavorum", *Scriptores Rerum Germanicarum*, ed. Georg Heinrich Pertz, Hannover 1868, p. 77.

towns like Cologne, Frankfurt am Main, and Nuremberg.⁸⁰ The export of Sound herring probably went beyond the limits of this brief account of it particularly to the southern part of the European market.

It is impossible to estimate the total export of Sound herring to the European market at any time. However, the known import to Lübeck at the turn of the fourteenth century gives an indication of its magnitude: in 1398 Lübeck imported from Malmö, Skanør, Falsterbo, Dragør, Ystad and Trelleborg 71,230 tons of herring, in 1399 81,172 tons, and in 1400 69,975 tons.⁸¹

Why the prosperous Scania markets fell into decay is hard to explain. It has been suggested that the herring population in the region declined due to climatic changes in the Late Middle Ages, but this explanation must be set against the massive herring fishery operating at Bohuslen in the second half of the sixteenth century.⁸² In the long run a disadvantage was that the markets were seasonal. Normally, the Scania markets were held from 15 August to 9 October. In terms of general merchandise, the annual markets in Europe became increasingly inadequate and were eventually phased out. In addition the Stralsund Treaty of 1370 gave the Hanseatic towns the upper hand in the region around the Sound, and they denied their Flemish, English, and Dutch competitors free access to the markets. The result was twofold. The markets deteriorated and the direct trade between the Baltic and the North Sea region expanded. As a consequence the old duties payable at the Scania fairs by the merchants sailing *ummeland* were replaced around 1429 by a toll on all foreign vessels passing through the Sound and were collected at Elsinore. Secondly, merchants from the regions around the North Sea began to oust Sound herring by reviving the herring industry in their homeland. Herring from the Limfjord, which divides northern Jutland into two, certainly experienced an upswing that coincided with the downturn of the fishery in the Sound. From the mid-fourteenth century herring from the Limfjord and the Sound were in direct competition on the European market. At that time the fishery at Limfjord had probably existed for centuries, but long-distance trade in herring from this region cannot be traced before the fourteenth century.⁸³

⁸⁰ Jahnke, *Das Silber des Meeres*, pp. 227–261.

⁸¹ *Ibid.*, table 7, p. 421.

⁸² *Ibid.*, pp. 293–302.

⁸³ *Ibid.*, pp. 322–335.

According to the above-mentioned Flemish import register, the only horses imported to Bruges and Flanders were Danish *palefroy*. Danish horses had been renowned in Europe since the twelfth century. Around 1180 the Parisian Abbot Stefan praised the beautiful horse he had received as a present from the French-Danish Abbot Wilhelm of Æbelholt. Horse-breeding in the thirteenth century is documented in the chronicle of the Cistercian abbey at Æm, and is also recorded in *Kīng Valdemar's Survey* (c. 1230).⁸⁴ Horses as an export commodity appear for the first time in an order by Henry III of England in 1226 concerning the purchase of five of the six horses recently arrived at Yarmouth from Denmark. A quarter of a century later, in 1252, a Flemish customs tariff mentions that Danes are bringing horses and oxen for sale at Damme, and above we have seen an incident from the 1260s when horses were traded for grain in northern Germany at a time when grain was dear in Denmark.⁸⁵ We have also already seen that horses were exported from Ribe, as they probably also were from Holbæk in 1268, Roskilde in 1268, Flensburg in 1284, and Haderslev in 1292. Around 1300 the export of horses was so important that the duty payable on them was covered by royal legislation.⁸⁶ An indication that horses were exported in the fourteenth century is found in a customs tariff from Alkmaar dated 1339.⁸⁷ As in the case of Damme cited above, Danish oxen and other cattle are recorded as imports to the Netherlands in this mid-fourteenth century document. In 1485/85 about 4,500 horses were declared at Gottorp, matching the number of oxen recorded as passing through the customs there.⁸⁸

In the sixteenth century the export of oxen exceeded the export of horses. It is disputable, however, whether oxen were the most numerous Danish export commodity at the end of the Middle Ages: the export of fish was probably equally important.⁸⁹ Nevertheless, by the Late Middle Ages the export of oxen was huge: in the autumn of 1475 at least 4,000 to 5,000 head of oxen, perhaps even more, were driven

⁸⁴ *DD*, 1.3, no. 82; *SM*, 2, p.180; *KVJ*, vol. 1.2, pp. 30–31.

⁸⁵ *DD*, 1.6, no. 60; 2.1, no. 64.

⁸⁶ *KVJ*, vol 1, p. 8; *DD*, 2.2, no. 162; 2.3., no. 67; 2.4, no. 111; *DGK*, vol. 3, pp. 170, 328; vol. 1, pp. 129, 268; *DDR*, I, p. 181.

⁸⁷ *DD*, 2.12, no. 189.

⁸⁸ *KLAM*, 6, col. 524–532.

⁸⁹ Holm, "Catches and Manpower", pp. 177–206.

through the customs houses in Kolding and Ribe on their way to the southern urban markets. In the following years this export expanded: 7,300 head were cleared at Ribe and Kolding in 1485, 8,900 in 1491, 6,300 in 1497, and 8,600 in 1498. The sixteenth century witnessed an even greater export of oxen from Ribe and Kolding: from 1501 to 1508 between c. 10,000 and 20,000 head of cattle passed through the customs houses in the spring and autumn each year.⁹⁰ It is common knowledge that the human diet in north-west Europe became more animal-based with the fall of the population from the middle of the fourteenth century. This, together with a relative rise in the urban population and better standards of living, created a powerful demand for animal products. The great Danish export of oxen in the Late Middle Ages and beyond was a function of this growing demand for meat on the north-western European urban markets.⁹¹ But how did the Danish producers meet this development?

We have seen that the export of livestock, i.e. horses and cattle, can be documented from the thirteenth century. The animals were shipped by sea or driven overland, a process carried out more or less continuously from the thirteenth to the fifteenth centuries. Horses were shipped across the Baltic and the North Sea from Ribe, Funen, Lolland, and Falster, and horses and oxen were driven overland from central Jutland and the marshlands of south-west Denmark. According to Saxo's ethnological account of the latter part areas of the realm the people there lived in a rich arable land with plenty of cattle.⁹² The early international trade in livestock was based on cattle grazed throughout the summer and exported during the autumn. The earliest customs accounts therefore show more entries in the autumn than in the spring. By medieval standards it was quite advanced to keep cattle alive during the winter and then go on to fatten them for export. At any rate, this practice became common from the last decades of the fifteenth century and consequently the entries for oxen exported in the spring grew. Spring entries exceed the autumn entries for the first time in 1509, and over the next 50 years the spring export of oxen fattened

⁹⁰ Enemark, *Dansk oksehandel*, vol. 2, tables 15 and 20, pp. 259, 264.

⁹¹ Blanchard, "The Continental European Cattle Trade, 427–460; Bjørn Poulsen, "Danish cattle breeding and the European market", in *Rural Landscapes* 9, ed. Juan Gelabert (Danbury, Connecticut, 1992), pp. 117–128.

⁹² Saxo, book 14, 7,1, p. 181.

in stalls during the winter seems to explode and soon easily outstrips the autumn figures.⁹³

Subsistence and exchange economies were linked from the beginning of the Middle Ages and beyond. Commodity trade was an integral part of the economy on a local and regional scale, as it was between Denmark and other parts of Europe. Throughout the Middle Ages Danish farmers and craftsmen formed business links with merchants and consumers both at home and overseas. But this was indeed not a static flow of commodities between town and countryside, or Denmark and Europe. The nature and the volume of the commodity trade changed during the Middle Ages. In the eleventh century the trade in luxury commodities was still predominant, but the rise of market towns from the end of that century signals the fact that trade in bulk commodities, primarily foodstuffs, was about to enter a phase of increasing importance for the future of Danish economy. Towns needed victuals, firewood, building materials, mounts, draught animals, fodder, etc., but deliveries from the surrounding areas become only directly visible in the custom tariffs of the town laws from the thirteenth century. Foreign trade was also increasingly concerned with bulk commodities. Cloth had been imported since before our period, and from the thirteenth century onwards beer, iron, salt, lead, lime, stone, and timber were imported, while agricultural products and herring became increasingly important exports. From the early twelfth century Danish horses were known and valued in Europe as gifts and from the next century there is evidence that horses were exported to Germany, England, and Flanders. Together with hides, fat, tallow, herrings, and bacon, horses were the chief Danish export to the urbanized parts of north-western Europe, whereas extensive cattle exports did not begin before the end of the fourteenth century. Animal products were the backbone of the export. The thirteenth century saw the genesis of an international division of labour, with northern and eastern parts of Europe producing foodstuffs and raw materials and the north-west showing signs of proto-industrialization. In the Late Middle Ages, Denmark's export of animal products responded to these new markets and attained a level hitherto unknown.

⁹³ Enemark, *Dansk Oksehandel*, vol. 1, pp. 550–557; vol. 2, tables 19 and 84, pp. 263, 371.

GROWTH AND RECESSION: A SYNTHESIS

The starting point for this study was set out in the introduction. It noted that around the time of the First World War the concept of fluctuating levels of economic activity emerged in medieval research. The image constructed was of flourishing economic growth in the High Middle Ages followed by setbacks in the Late Middle Ages. During the Great Depression of the 1930s this concept was further refined in respect to the latter period, and led to the theory that a late medieval crisis affected the entire socio-economic fabric of society. A new approach to the study of social and economic history has been derived from successive and successful attacks on these views as put forward in the late twentieth century. This volume aims to contribute to a revision of medieval history. The traditional perspective views the social and economic development of Europe as a prolonged boom period, starting around 1000 A.D., followed by a general state of crisis beginning in the early or mid-fourteenth century and lasting for about 200 years. In the context of our study—the development of Danish resources between 1000 and 1550—this point of view cannot be sustained.

The High Middle Ages

Demography has provided the basis for the tradition described above. It is generally agreed that population growth characterized Europe in the High Middle Ages. Denmark follows this pattern in so far as population growth is detectable in the eleventh to the thirteenth centuries, but whether this had a forerunner in the Viking Age is not easy to determine. It is probable that the period 700 to 1350 saw an accelerating population growth ratio. However, it would be an overstatement to say that the population grew uninterruptedly from 1000 to the onset of the Black Death: in fact, population growth was moderate in the twelfth century probably as a result of the periodic famines that swept northern Europe about once every twenty years between 1099 and 1226. This is corroborated by meteorological evidence, which also suggests that population growth was checked by bad weather in the second decade of the fourteenth century.

In any case population growth was not evenly distributed throughout Denmark. The most extensive increase in population during the High Middle Ages is detectable on the margins of arable farmland and in the most peripheral areas of the realm. The moors of mid- and western Jutland, the marshes of Schleswig, and the woodlands of northern Sealand, Schleswig, and the districts bordering Sweden, not to mention the islands of Lolland and Falster, all experienced conspicuous demographic growth in the twelfth and thirteenth centuries. Even then, some of these locations had a population density approximating to (or even lower than) a third of the figure estimated for the most heavily populated parts of the country. In these regions, comprising the Scania plain and most of Sealand, Funen, and eastern Jutland, i.e. the arable zone, population growth between the Viking Age and the fourteenth century was probably not very significant.

It is impossible to establish the total population of Denmark at the start of the medieval period, but a tentative estimate based on *King Valdemar's Survey* suggests that around 1230 this numbered some 1.3 million. Assuming that the population of thirteenth-century Denmark developed in line with its English counterpart, it must have been close to 2 million when the great famine struck in 1315–1317. The healthy diet and generally good state of health enjoyed by many people in the High Middle Ages perhaps partly explains the population growth in this period. On the other hand, life expectancy for the medieval Dane, like that of his fellow Europeans, was very low, and appears to have fallen between the eleventh and mid-fourteenth centuries. The availability of wasteland situated in wetlands, moors, and woodland, the exploitation of fresh and salt water resources, together with a technologically simple agricultural practice provided a fairly wholesome diet for medieval man. Amongst the cereal crops there grew a variety of wild seeds and plants that were consumed along with the cultivated plants, while the ritual abstinence from meat for two or three days a week and throughout the whole of Lent stimulated a massive consumption of fish and shellfish. Nevertheless, the staple commodity was grain, consumed as bread, pottage, and porridge, or turned into beer.

The expansion of arable production was the most conspicuous feature in the development of Danish resources in the High Middle Ages. However, the increase of arable land must be seen in a historical context. The expansion of woods from the third century A.D. onwards was followed by declining grain production and a landscape that became even more densely wooded in the period up to c. 1000. In the tenth century the forested area of Denmark reached the largest size ever

attained in the past 2000 years. Efforts to create clearances during the High Middle Ages were intense, and many of the resources provided by uncultivated woodland were lost as these areas were turned into good arable land. Throughout the Middle Ages, however, woods remained a crucial resource and we hear of recurring conflicts, particularly in the well-forested eastern and southern provinces, over firewood, timber, and other woodland resources, as rights were contested by all classes of society—peasants, private speculators, and the kings of Denmark themselves. The opportunity for peasants to access the woods, or at least those woods not owned by them personally, was gradually defined and restricted. Woodland was the most important biotope to be affected by the medieval colonization of arable land. The increasing importance of animal husbandry is suggested by a simultaneous spread of heath, particularly in western and mid-Jutland. However, the High Middle Ages experienced a fundamental transformation from cattle farming to arable farming. This new priority and the expansion of arable land were marked by important technological innovations.

The most immediate consequence of the growth of arable farming was that the cultivated areas of individual farms expanded. The size of these areas is estimated to have increased from an average of 2–5 hectares in the Viking Age to some 15 hectares in the medieval period. This growth in arable was followed by a decrease in the number of livestock being kept. While in the Viking Age an average farm would have some 12 beasts in its stalls, and some large farms would have up to 100 animals, a standard-sized farm in the thirteenth century possessed perhaps two horses, two oxen, two to four cows and a small number of sheep. Only in the south-western part of Jutland and in west Schleswig were cattle more numerous, partly because of the ongoing transformation of woods in these areas into meadows and moors. Another consequence of the increasing importance of arable farming was the development of common fields. Both archaeological evidence and the provincial laws first appearing in the late twelfth to mid-thirteenth centuries indicate that a change has taken place from individually owned and fenced fields to collective field systems. Open-field systems were established in the eastern parts of Denmark during the thirteenth century. A number of villages in east Jutland operated two-field systems in the early fourteenth century, while by the mid-fourteenth century three-field rotation was being practised in Sealand.

Rye, barley, and oats had been cultivated in the Iron Age, but thanks to the introduction of the heavy mouldboard plough, which turned the furrows and drained the fields more adequately than earlier more

primitive ploughs, rye and oats could now be more efficiently grown. Around 1200, harvesting and threshing became more effective with the introduction of the flail and a new kind of sickle. Milling also improved, with manually operated quern-stones being replaced by water mills around the year 1100. The improved production of rye was a result of these major technological inventions introduced in the eleventh and twelfth centuries, as was the growing of oats, which provided an important source of fodder for horses. Horses were needed to pull the harrows, another vital innovation that appeared in the High Middle Ages as a valuable adjunct to increased grain production. Horses also carried produce from place to place, transported grain to mills, and supplied the emerging urban markets; their importance increased from the eleventh century onwards, and they were commonly used as draught animals from the thirteenth century.

The growing population combined with the expansion of arable land and resulted in the creation and dissemination of new villages. While villages certainly existed before the Middle Ages, many settlements were not aggregated into villages until the eleventh and twelfth centuries. Nonetheless, there were regional differences in clustering of farms and the establishment of villages. Solitary farms were by no means unknown in the Middle Ages, especially on the margins of arable land, and were often located in moorlands, forests, fens, and hilly terrain. Social and political conditions made an impact on the structure of settlements too. The village was the fundamental organizing cell in medieval society and a dynamic element in the arable economy. When a village became overpopulated it might well be able to expand along with its common fields but members of the community might move away and establish a new settlement. Population growth forced members of old village communities to migrate and settle elsewhere, while alternatively the original village might be divided into two. It is impossible to say how often new villages were offshoots of older settlements and how often they were established on wasteland by settlers coming from outside.

The development of medieval villages had different starting points and dynamics, and this basically important institution in the medieval agrarian world developed as a result of a multitude of reciprocal causes. The growing emphasis on arable farming at the expense of animal husbandry was combined with demographic growth and colonization to provide major incentives. The pastoral, individual infield-outfield farming practised at dispersed outlying settlements caused no problems as long as there were no immediate neighbours. The more conglomerate

and dense the settlements became, the more the inhabitants infringed upon each others' resources, and the more the definition and regulation of rights became necessary. The solution was to cluster settlements and consolidate land into the collectively regulated and redistributive resource that characterizes the medieval village. A second important factor was the escalating accumulation of landed estates detectable from the eleventh century. The medieval village and the regulated village field were appropriate structures to meet the new administrative demands produced by an increase in the class of great landowners and the creation of substantial holdings of land.

No information about these large holdings of land exists until the end of the eleventh century, but such estates were probably known before 1000 A.D. However, the sources give us no reason to believe that the accumulation of large estates was widespread before the twelfth century. In provincial laws dating from the late twelfth to the mid-thirteenth centuries the image of a democratic distribution of land can still be found, but deeds and charters from the late eleventh century onwards also show that during the High Middle Ages a class of great landowners evolved. In the early twelfth century the estates of the powerful lay families in Sealand are fairly well documented as a result of their donations to churches and religious houses. In one district, for example, it can be seen that a noble family owned more than half the local land. By the early thirteenth century, certain Cistercian foundations had accumulated a substantial proportion of the total land that would eventually be owned by them at the dissolution of the monasteries following the Reformation of 1536. This accumulation of church land and monastic estates took place at the expense of lay landowners and the king, the very people who had donated land to the church. By about 1231 the king owned perhaps five per cent of the land in his realm.

The creation of large landed estates, the subsequent concentration of landed property, and the formation of a class of leaseholders (*landboer*) meant regular, continuous, and growing revenues that went to a class of magnates steadily becoming smaller and with a surplus at their disposal. This development stimulated the division of labour and advanced the commodity trade. Commercial activities of various types had existed since prehistoric times, side by side with other forms of exchange, such as tribute and gifts. In this respect the Middle Ages did not experience a transition from a natural economy to a market economy. Nonetheless, the exchange of commodities expanded after 1000, and particularly in the twelfth and thirteenth centuries. Commerce was professionalized and

supported by the development of an infrastructure and by the introduction of different means of transportation. The emergence of merchant guilds, the increased use of non-oared sailing ships, the growing tonnage of cargo vessels, and the rise of the medieval kingdom, which protected and supported trade, are factors that indicate commercial accumulation and richer, more professional, merchants. Trade became increasingly distinct from military and agricultural occupations.

This trend gave rise to a dramatic growth in the output of mints. We do not have precise figures for Danish mints in the High Middle Ages, but nevertheless it is clear that from the eleventh century onwards the number of coins they produced was soaring. An increase from one million *penninge* minted per annum in the eleventh century to more than twenty million by the 1320s is plausible. Money transactions found their way into all spheres of society. The most marked element in monetary circulation during the medieval period was the use of coin in local transactions and payments. This integration of cash into society is evidenced by the payment of rents and taxes in money, rather than in kind, and in the numerous treasure hoards and other finds that are comprised of (or at least contain) coins. This new and more intensive use of coins seems to become common in towns from the end of the twelfth century, and in time spread from the urban sector to the rural areas. A money economy had developed in country areas of Denmark as early as the eleventh century, but the volume of money circulating in these districts escalated rapidly in the period that followed. From the eleventh century until the first decades of the fourteenth century, the size of the coinage and the circulation of cash expanded. This growth took place primarily in the thirteenth century, but the earlier trend should not be underestimated. However, monetization was never evenly distributed throughout the realm. In the High Middle Ages there were certain regions that were only associated to a very limited degree with the national circulation of coins. The north-west of Jutland, for example, located on the fringe of the realm, lagged behind, while other parts of eastern Denmark, especially Scania, were pioneers in this respect.

Surplus production, monetization, and the development of both the division of labour and commodity trade combined to bring about an upsurge of market-places, and in particular the great fairs held in Scania. On the basis of a formidable herring fishery, these fairs developed to become the largest complex of international markets in Scandinavia. Herring drawn from the Sound became a high quality product, internationally recognized, and at the peak of the Scania fairs in the four-

teenth century this commodity was exported throughout the northern and central parts of Europe. In the High Middle Ages the Scania fairs were a Danish nexus of national and international trade. Alongside this development an urban revolution took place. In the late twelfth century and well into the thirteenth century the urban population grew rapidly. The number of towns increased and the size of towns became larger. Around 20 towns were founded between 1000 and 1200, while from 1200 to 1350 no fewer than 63 new towns appeared. At the same time considerable specialization and an increasing division of labour can be traced. Following the urban revolution of the twelfth and thirteenth centuries, the seigniorial power over towns weakened and communal government evolved in cooperation with the lord's bailiff. The growing independence of town life was guaranteed by royal privileges and town laws granted by the Crown.

A conspicuous element of town life around 1200 was that craftsmen and craftswomen now operated independently. Previously, many skilled workers were dependent members of larger households, but from the early eleventh century onwards mint-masters and goldsmiths moved relatively freely in the royal and noble circles of northern Europe. Similarly, the eleventh and twelfth centuries saw groups of foreign workmen travelling the country erecting stone churches. In the second half of the twelfth century and throughout the thirteenth century, the self-sufficiency of households collapsed, especially in towns. Domestic needs were more likely to be met by the products of an increasingly wide range of specialists living in these urban areas. The concentration of crafts in towns and away from the countryside became marked, as did the division of labour that developed in the towns: many new crafts emerged from 1200 onwards. Coincidentally, the first signs of craft guilds appear in the town statutes, and by the end of the thirteenth century a number of crafts had organized themselves into guilds. The recognition of craftsmen as free men, able to operate in corporate groups, did not take place without a struggle, however. The town lords of the thirteenth century often adopted an attitude of distrust toward guilds and did their best to oppose their members, but nonetheless the same artisans soon appeared in the sources as *burgesses* of the towns.

Commercial and urban expansion from the late twelfth century and throughout the High Middle Ages took place against a backdrop of strengthened central authority. Town taxes, taxes on crafts, customs duties, and incomes from the mints already comprised substantial sources of revenue in the early Danish kingdoms. By the mid-twelfth

century the realm was united under one sovereign and soon after the first indication of royal taxation on a national scale appears. During the thirteenth century the kings of Denmark progressively gained military and legislative control and in due course also played a part in the enforcement of law and order. By the end of the High Middle Ages kingship had therefore developed to a level that could establish vital economic conditions of reproduction, not only for the urban trades but also for the dominant agrarian sector.

The spread of literacy and learning was a crucial factor in the formidable growth of landed estates, the evolution of large-scale agricultural production, the professionalization and expansion of commercial activities, the urban revolution, and the expansion of central authority. The Church led the way in the propagation of literacy. In his foreword to *Gesta Danorum*, written around 1200, the chronicler Saxo claimed that Denmark had only recently become a part of the Christian church and through this gained access to Latin, by which he meant a written language.¹ Saxo was doubtless right when he commented that hitherto few people had been able to read the rune stones dating from the tenth and eleventh centuries, and it is also the case that only very few documents have survived from before 1200. Some rune stones can perhaps be interpreted as deeds and wills, representing claims of inheritance to land and power, but the majority of the stones are monuments. In 1198 the pope regretted that written wills were not used in Denmark. The earliest known wills to be written in Latin were those of Bishop Sven from around 1180 and Archbishop Absalon, which dates from 1201. The earliest surviving deed written in Latin dates from 1085. From the period before the mid-twelfth century only some 20 documents, all confirming gifts to churches and religious houses, have survived, whereas from the following century more than 200 such documents have been handed down to us. In the thirteenth and fourteenth centuries many new written sources, such as laws, legal documents, surveys, etc., appear, and a rapid growth in the number of such written documents characterizes these centuries too. Although it is true that during the thirteenth century schooling became more accessible, with some children from rural backgrounds known to have been pupils at cathedral schools, it is disputable how widespread literacy among the peasantry actually was. Nevertheless, in due course an adequate level of literacy must have

¹ Saxo, Praefatio, p. 72.

developed for a legally independent rural population, dominated by peasant landowners, to flourish.

Peasant-owned farms were widespread by c. 1300, but many peasants relinquished their ownership of land in return for tax exemption and protection by ecclesiastical and lay lords. During the High Middle Ages the majority of freeholders gave way to a new class of society comprised of leaseholders, *coloni*, mentioned in documents from the twelfth century onwards, and smallholders, *inquilini*, who appear around 1230, albeit only as a minority at this point. The provincial laws provide an accurate sociological reflection of the distribution of landownership in the High Middle Ages. Nevertheless, the non-landowning class soon became numerous. The oldest Danish surveys to survive, carried out on behalf of the Canons of Aarhus (c. 1315) and the Bishop of Roskilde (c. 1370), show that in the thirteenth century Sealand and eastern Jutland were largely inhabited by tenant farmers and cottars. At this point the bishop owned more than 2,600 farms in Sealand, i.e. close to 20 per cent of the total number. All of these farms, along with those belonging to other churchmen, to the nobility and to the king, were occupied by leaseholders and cottars. By the fourteenth century the transformation of a majority class of freeholders into a new majority class of tenants and cottars was thus far advanced.

These first steps on the road to the feudalization of the Danish peasantry were taken in the fourteenth century, against the background of precarious living conditions for many rural dwellers, both tenants and cottars. The majority of the Jutlandish cottars recorded in the survey of the Canons of Aarhus were landless, while many of those on the island of Sealand could scarcely live off the land they leased. Some 60 per cent of the tenant farmers and cottars on the estates belonging to the Bishop of Roskilde were in possession of such small plots of land that they can only be described as poor. These particular tenants account for only 25 per cent of the total peasant holdings owned by the bishop, thus signifying a profound social stratification. It was a precondition for the survival of smallholders that they could supplement their living with paid work on the manors. Manorial production was based on paid work, while the demand for manpower from substantial peasant farms and the urban sector mattered little.

In contrast to the many signs of growth, vitality, and prosperity, summarized earlier in this chapter, the history of the Danish peasantry in the late thirteenth and early fourteenth centuries evokes a rather dismal picture of the High Middle Ages. However, poverty was not so

severe that it caused an actual decline in the population. The density of population was not particularly alarming and we cannot speak of overpopulation in the early fourteenth century, although at that time poor landless men and smallholders were numerous in peasant society. The population growth rate probably flattened in the decades before the Black Death. The famine years of 1315–1317 played their part in this, but only the plague epidemics from the mid-fourteenth century onwards made any serious and long-term impact on the demography of the country.

The Late Middle Ages

The Black Death ravaged Denmark in 1349 and particularly in 1350. The continuance of epidemics seems to have resembled the European pattern, with outbreaks occurring several times in the second half of the fourteenth century. The evidence of the cumulative demographic impact of these epidemics is clear in the many deserted farms recorded after 1400, while such indications are rare in the second half of the fourteenth century. In some parts of the country, woodland reasserted itself where once farms had been. In Hornsherred, Sealand, the fields belonging to several villages reverted to woodland, while in some areas of Jutland the distribution of arable land and woods and moors also changed—to the detriment of the former. In general, however, the ratio of arable, meadow, woods, and moors barely changed in the Late Middle Ages, particularly in the more fertile areas of the country. However, from the fifteenth century there are many signs that woods and meadows had begun to dwindle. Encroaching heaths reduced the supply of timber, and this problem was exacerbated by the widespread burning of charcoal. Disputes, lawsuits, and attempts to define the right to use the woods illustrate the value of this resource in the Late Middle Ages. But then again similar conflicts and efforts to define ownership and the legal exploitation of the woods were also common in the High Middle Ages.

The desertion process culminated in the first two decades of the fifteenth century but does not necessarily imply that the demographic development of Denmark had reached its next turning point. The plague and other epidemics visited the land regularly after 1400 and for the remainder of the medieval period. These recurrent outbreaks were in general less disastrous than those experienced in the second half of the fourteenth century, but they clearly retarded the growth

of the population. From the mid-fifteenth century there are signs that the population was increasing, but this was hardly enough to herald a demographic turning point. If anything, late medieval Denmark witnessed a chronic population deficit.

The Late Middle Ages were not characterized simply by desertions. In some places the number of taxpayers increased, while some of the islets were actually settled for the first time in the fifteenth century. It was also at this time that the fishing hamlets on the north coast of Sealand became permanent. Clearings along the coasts of Funen and large-scale dikes built along the west coast of Schleswig are other signs of growth during this period. Furthermore, the number of smallholders increased in certain locations from around 1500 and in time this became a pronounced and general trend. It is difficult to say how many hamlets and villages really did disappear: an educated guess would be that just above 10 per cent were lost, but abandoned farms and villages did not necessarily mean that arable land went out of cultivation. There are many examples of fields belonging to deserted villages being converted to demesne land or incorporated into neighbouring village fields. A tendency to substitute arable farming with animal husbandry is also detectable, while marine and forest resources were exploited in some parts of the country. New settlements were being built and not only by peasants. In the Late Middle Ages, many wealthy landowners constructed their new manors in woodlands and eagerly claimed their rights to the resources this offered. These changes must all be taken into account in any assessment of the economic climate of Denmark at this time.

The late fourteenth century saw a boom in the export of livestock and animal products. Alongside this development the administrative abilities of Danish merchants advanced. Their ledgers survive from the fourteenth century, and their correspondence from the following century, together with an entire archive kept by a humble urban dweller. A substantial trade in cattle and a new expertise in business, combined with an increase in Danish sea trade to the Netherlands, may explain why Denmark apparently enjoyed a stronger economy than north Germany, her most important trade partner, in the Late Middle Ages. From the late fourteenth century onwards, Lübeck was hit by an economic slump that lasted until the 1520s.² Denmark, on the other hand, worked up a

² Rolf Hammel-Kiesow, "Häusermarkt und Wirtschaftliche Wechsellagen in Lübeck von 1284 bis 1700", *Hansische Geschichtsblätter* 106 (1988), 41–107; Rolf Hammel-Kiesow, "Hansischer Seehandel und wirtschaftliche Wechsellagen. Der Umsatz im Lübecker

solid trade surplus in relation to the north German towns.³ The export of livestock, both horses and cattle, can be documented from as early as the thirteenth century. This transportation of live animals bore witness to organizational improvements which in turn contributed to an upswing in the volume of exports throughout the Late Middle Ages. This trend seems not to have been seriously affected by the international “silver famine” that lasted from the 1390s to the 1460s, although in the fifteenth century both Denmark and northern Germany experienced shortages of silver and coin. This dearth of bullion undoubtedly caused a dip in the quantity of money in circulation, and it is significant that the export of oxen boomed spectacularly after 1460, by which time the bullion crisis was over.

Initially this international trade in livestock was based on oxen grazed over the summer and exported in the autumn. However, from the last decades of the fifteenth century it became the practice not only to keep cattle alive throughout the winter but also to fatten them for export, with the result that the number of oxen exported in the spring increased significantly. During the first half of the sixteenth century, the spring export of oxen, over-wintered and fattened in barns, saw a dramatic increase and soon far exceeded the autumn exports.

In the early sixteenth century the export value of oxen surpassed that of horses. Nonetheless, it is disputable whether oxen were the most important commodity to be exported by Denmark by the end of the Middle Ages: fish was probably of equal significance.⁴ Nevertheless, the export of oxen during this period was massive. It is common knowledge that dietary patterns in north-west Europe changed after the population drop in the mid-fourteenth century and more animal products were consumed. This factor, together with the relative growth of an urban population and better standards of living, created a vigorous market.

Hafen in der zweiten Hälfte des 14. Jahrhunderts, 1492–6 und 1680–2”, in *Der Hansische Sonderweg? Beiträge zur Sozial- und Wirtschaftsgeschichte der Hanse, Quellen und Darstellungen zur Hansischen Geschichte*, n.s. 39 (Cologne, 1993), 77–93; North, *Geldumlauf und Wirtschaftskonjunktur*.

³ Enemark, “Lybæk og Danmark”, pp. 161–187.

⁴ Holm, “Catches and Manpower”, pp. 177–206; Jahnke (2000).

Denmark's export of oxen in the Late Middle Ages served this growing demand for meat, while the importance of meat and dairy products is also reflected in the home consumption of bacon, beef, mutton, lamb, goose, and butter, as recorded in Danish sources from the early years of the sixteenth century.

Danish towns were severely affected by the Black Death, and while immigration helped to offset manpower shortages there is little doubt that houses still stood empty in the aftermath of the plague. Even well-established towns, like Copenhagen, Malmö, Næstved, Landskrona, Lund, and Køge, experienced difficulty in attracting enough people to take up residence on their plots of land. In Ribe we see large-scale desertions in the Late Middle Ages. On the other hand, signs of urban growth dominate the picture from about 1400 onwards. In the period 1400–1550, 31 new towns sprang up in Denmark, i.e. ten more than in the period 1000 to 1200 and half the total number of new towns founded during the thirteenth and the first half of the fourteenth centuries. It is remarkable that so many new towns emerged at this point, the more so because even in the High Middle Ages the network of urban centres was almost complete. Nevertheless, new towns were built around the Sound, in the Limfjord region, and in peripheral parts of the realm. Although the population had decreased, new townscapes emerged. The series of royal towns founded from the early fifteenth century is impressive. Some of the changes we see in towns during the first 30 years of this century are perhaps not so much an indication of real urban growth as a royal attempt to monopolize trade, abolish illegal harbours, prevent illicit trading outside the town gates, and channel all trading activities into urban market-places. Nonetheless, it is evident that genuine growth existed in the sense of new urbanization, as opposed to a formal change of status applied to certain towns, Elsinore for instance.

In peripheral parts of Denmark, urban growth continued throughout the whole of the fifteenth century. The number of towns was increasing, while some existing towns were becoming larger. Copenhagen acquired its position as capital at the expense of other royal towns in Sealand, such as Kalundborg and Vordingborg. Some ancient towns extended their street plan in the second half of the fifteenth century. Late medieval growth saw a new town hierarchy being created. The episcopal towns of Roskilde, Viborg, and Lund became less prominent, while a number of ports, especially in eastern Denmark, gained in importance. Malmö and Copenhagen were now the most prosperous towns in the

country. It is clear that by the Late Middle Ages the proportion of the population living in towns was on the increase. By the year 1500 the percentage of Danes leading an urban existence had passed 10 per cent. In the relatively more urbanized Duchy of Schleswig, about 15 per cent of the population were town-dwellers by c. 1530. However, Denmark at the end of the Middle Ages was a society comprised of small towns and, compared with most urbanized parts of Europe, was still predominantly rural.

Written documents became an ever more important part of urban administration. From the fourteenth century onwards, most Danish towns kept their own archives. Lists showing urban taxes survive from the late fourteenth century. Registers of urban land transactions appear in the second decade of the fifteenth century and are followed by the earliest civic records of revenues and expenditures, which date from the 1430s. From about 1400, the craft guilds kept archives recording by-laws and privileges. By the fifteenth century, many craftsmen kept some forms of accounts. The early sixteenth century saw large numbers of guilds in operation: for instance, in 1525 a meeting of the Copenhagen town council was attended by representatives of 14 guilds. After 1350, artisans gained such public recognition as burgesses that cooperation between the crafts guilds and the town councils could begin. The animosity of the civic authorities, evident in the thirteenth century, gradually disappeared, while the status of craftsmen grew. Simultaneously, an explosion occurred in the number of different crafts being practised. This growth took place as a result of German influence and led to the practice of some extremely specialized occupations in late medieval towns. The dominance of urban workshops did not mean that crafts disappeared from the countryside altogether: there were still craftsmen working in castles, manors, and religious houses, and specialists were also practising their skills in rural settlements. In the late fourteenth century a range of crafts still operated in the rural areas, but by now civic and royal authorities were intent on limiting the number of crafts carried out in these parts. From the fourteenth century onwards, towns attempted to regulate and monopolize rural crafts and to force craftsmen into towns. Both the number of artisans and the number of crafts multiplied, and from the fourteenth century skilled craftsmen comprised a substantial proportion of the urban population.

Urbanization, the increasing division of labour, and rising standards of living in the Late Middle Ages are reflected in the development of commodity trade. German beer was known in Denmark from at least

the mid-thirteenth century, and the import of beer in the following century seems to have put a growing strain on Danish brewers and beer-vendors. Beer from Lübeck, Rostock, Wismar, and Stralsund dominated the import market, while the output of breweries in Einbeck and Hamburg gained a foothold in the late fifteenth century. By the fifteenth and sixteenth centuries the import of German beer was considerable. Also in the High Middle Ages imported foreign cloth was sold exclusively to the nobility and wealthy burgesses. In contrast, by the Late Middle Ages the common people were also able to indulge a taste for expensive imported cloth. A variety of sources from the late fifteenth century and the first half of the sixteenth century reveal that right across Denmark there were peasants who bought, owned, or even traded cloth. The import of wine and spices also increased in the Late Middle Ages, but was never crucial: these commodities were doubtless reserved for special occasions and were enjoyed by the upper ranks of society alone.

Sometime after 1350, when the cumulative effect of recurrent plague epidemics was felt, a new demographic pattern evolved. Rising standards of living, including improved and less crowded housing, led to improved life expectancy. Better living standards for the rural population were primarily made possible by the decrease in land prices and land rents caused by a radical change in the land/manpower ratio from the second half of the fourteenth century. Labour became scarce and possibly even retarded grain production on large peasant farms. The competition for labour among the great landowners provoked attempts to impose bondage on tenants. The first known attempt at this was stopped by the king's council in 1376, but in the 1490s bondage was imposed on the rural male population of Sealand, Lolland, and Falster. Peasants and their sons were tied to their native estates. Tenants were still free in the late fourteenth century. No evidence speaks against leasehold as the most widespread form of land tenure in Denmark from the twelfth to the early fifteenth centuries. By the early sixteenth century this commercial and market-oriented form of land tenure had disappeared from some of the heartlands of arable farming. In the rest of the country it is difficult to determine the status of tenure, but it is quite plausible that, by the beginning of the fifteenth century, life tenancy, terminable tenure, and interminable tenure all existed.

In addition, tenants became ever more subject to the judicial power of the landowners, but this process began long before Denmark experienced a demographic downturn. The first trace can be found in the

Law of Jutland dating from 1241, in which men serving the king and bishop were guaranteed the right to fines of up to three marks from their tenants. In the Statute of Scania (1284) King Erik Glipping granted his men fines of up to three marks from all their tenants except those who were fined by the royal court (*rettertinget*). Christoffer II's coronation charter (1320) extended this privilege: all knights and esquires in the realm were granted the right to fines of up to nine marks from their dependents (*familiae*). Christian II's coronation charter (1513) and that of his successor, Frederik I, stretched these privileges to the limit, granting the nobility the right to all fines from their tenants and underlings. A decisive change in this development took place after 1536, when Christian III's coronation charter gave the landlords permission to prosecute any crime, even felony, committed by their tenants. Even peasant landowners were subject to this law and were described as bondmen, *vorned*, of the Crown.

However, after 1536 tenants could still bring a case before a public court (*herredstinget*), and cases put forward by landlords against tenants were also required to be submitted to this public court normally presided over by a peasant and witnessed by 8–12 *thingmen*, unless the landlord in question had his own private court (*birketing*). A small number of religious houses had a *birketing* in the early twelfth century, but these were not common on monastic estates until the end of the fifteenth century. On lay estates a mere handful of manorial courts emerged in the second half of the fourteenth century, but in the period 1448–81 they multiplied. The next wave of lay *birketing* came after the Reformation. From 1459 to 1588, at least 58 such manorial courts were established. In the Late Middle Ages it was the lords themselves who appointed and paid the judges in the *birketing*, so these courts can hardly be said to be impartial: from a legal point of view, tenants subject to private courts were completely at the mercy of the magnates.

This deterioration in the social and legal status of certain peasants was followed by an increase in the dues and services for which they were liable. These new burdens were imposed from the late fourteenth century onwards and were most probably a response by the landowners to dwindling rents, but they can rarely have counterbalanced their losses. The majority of peasants enjoyed favourable economic conditions, but the agrarian structural change that followed the demographic decline not only resulted in a reduction in the number of manors but also in the number of peasant farms of varying sizes. Moreover, in the long run we see an increase in the number of cottars and smallholders, while

the ratio between manors and these potential agricultural workers rose correspondingly. At the end of the Middle Ages this stratum of peasant society was probably as badly off as many cottars and agricultural workers were in the pre-plague period.⁵

As always it is far easier to uncover information about the prosperous peasant than to trace the fate of the poor. Valuations of the silver, coins, oxen, and cows owned by wealthy tenants in the early sixteenth century show that some peasants were fairly rich, owning more than one farm or perhaps even a ship. Three registers of taxpayers dating from the early sixteenth century show peasants possessing movable goods with a value of up to 400 marks, but they also illustrate distinct differences in peasant wealth.⁶ In Schleswig, capital taxes from the 1530s show many peasants possessing capital of more than 400 marks and quite a few with between 1000 and 2000 marks.⁷ Doubtless some peasants were prosperous because they had been clever and energetic enough to take advantage of the abundant resources and the favourable international commercial opportunities that opened up in the wake of the drop in population.

As we have seen, the Danish export of animal products became increasingly valuable from the late fourteenth century onwards, with a greater demand for tallow, bacon, beef, and hides coming from the urban centres of the Netherlands and northern Germany. To a considerable degree late medieval Denmark had a cattle-based economy, especially in the western parts of the country. It is probable that the breeding of pigs, goats, and sheep was growing during this period and we see manors with flocks of more than 100 sheep. The altered land/man ratio in favour of man furthered a more adequate balance between fields and meadows, allowing an increase in livestock and manure. This consequence of the population decline was important in an agrarian economy still dominated in most parts of the country by peasant grain production. In some regions there were innovations in grain production. Wheat was never very important as a crop, but

⁵ Nils Hybel, "Landownership, farming and peasants in Denmark in the Middle Ages", in *Landholding and land transfer in the North Sea area*, eds. Bas van Bavel and Peter Hoppenbrouwers (Turnhout, 2004), pp. 198–200.

⁶ Erik Ulsig, "Bonde og godsejer ved slutningen af dansk middelalder", in *Danmark i Senmiddelalderen*, ed. Per Ingesman and Jens Villiam Jensen (Århus, 1994), pp. 115–121; Bjørn Poulsen, "Trade and Consumption among Late Medieval and Early Modern Peasants", in *Scandinavian Economic History Review* 52 (2004), 52–68.

⁷ Ethelberg et al., *Det Sønderjyske*, pp. 636–638.

was still grown on the southern islands, two of which, Lolland and Als, were centres of wheat production in the Late Middle Ages. On the island of Lolland, rotation systems using four or five fields were developed. As in Mecklenburg, the peasants of Lolland adapted a field system designed for export production to the Hanseatic markets. It is therefore not surprising that this region took the lead in introducing the scythe for reaping, in place of the traditional sickle.

There were many prosperous peasants who could read and write: these skills became essential in land transactions and commercial activities, and literacy spread amongst the peasant class during the Late Middle Ages. The use of documents in village life increased rapidly from the mid-fifteenth century. Teaching might be carried out by family members or by the local parish priest, while urban schools flourished and, from the fifteenth century onwards, included the sons of peasants among their pupils. The education and literacy of peasants in the Middle Ages was ostensibly marked by slow but continuous progress which accelerated as the fifteenth century got under way.

It would be an oversimplification to describe the Late Middle Ages as a prosperous period for the peasantry. Lower rents and an abundance of land caused by the demographic downturn did not favour all members of peasant society equally. Whether peasants in general were better off before or after the demographic swing is not easy to judge either, but the dreadful death tolls of the recurrent epidemics seem in the long run to have benefited many rural survivors. Similarly, 'the crisis of the landlords' is a vulgar and simplistic label to attach to the Late Middle Ages.

In a time of declining or stagnant incomes from rents and other dues and services, landowners were forced to diversify and expand if their level of income was not to deteriorate. For some members of the lesser nobility this meant a struggle against social decline and a fear of being absorbed into the peasant class. Small landlords owning at most a dozen farms could easily be in danger of losing everything, particularly if they had large families to provide for. The rules of inheritance set out in the provincial laws as early as the twelfth century decreed that all children were entitled to a share in the inheritance, although male heirs inherited twice as much as female ones, and this law remained in force throughout the Middle Ages. The consequence, of course, was that estates were constantly divided and land redistributed. There is only very little information about estates belonging to the lesser nobility in the Late Middle Ages, but several examples illustrate the distress of

these families. In the second half of the fourteenth century even certain members of the upper nobility were affected by the combination of a shortage of manpower, a decline in incomes, and the Crown's seizure of land, while the Church and the Crown were relatively unaffected by these factors. In Sealand the Bishop of Roskilde purchased land from the nobility. It was not only kings and bishops who profited from the distress of these unfortunate noblemen. Energetic individuals, whether ambitious Danes or German immigrants, took advantage of cheap prices and bought up land, sometimes even entire estates. This process of land accumulation continued throughout the remainder of the Middle Ages, although a peak was reached at the end of the fourteenth century. In the fifteenth century the Crown's 'bulk purchases' of land came to an end, and bishops also stopped this practice. Mortgaging became infrequent in the late fifteenth century and land transactions decreased in relation to the busy land market in the late fourteenth and early fifteenth centuries. In addition the sale of peasant land to the nobility stopped. The land market in the fifteenth century was dominated by wealthy magnates, who bought up land from the lesser gentry.⁸

From 1290 onwards an increasing number of deeds and surveys of ecclesiastical estates survive. Bad weather and crop failures in the second decade of the thirteenth century and in particular the difficulties caused by recurrent plague epidemics from the mid-fourteenth century seem generally to have stimulated the production of this documentation, and also of manorial accounts. The increasing number of agrarian records is a conspicuous reflection of the distress that landlords experienced as a result of unfavourable weather and a shortage of manpower. It was crucial that resources were husbanded and every available means employed to inspect and improve them. The successful accumulation of land by the Crown and the Church from the fourteenth century onwards was based, among other things, on a growing dependency on written documents. We know next to nothing about the practices employed on estates owned by noble landowners but, as already noted, certain enterprising noblemen clearly prospered at the expense of their less successful fellows.

⁸ Ulsig, *Danske Adelsgodser*, pp. 198–202, 213–250; Erik Ulsig, "Adel og Konge, Tilbagegangen i adelig godsbesiddelse på Sjælland i senmiddelalderen", in *Riget, Magten og Æren. Den Danske Adel 1350–1660*, eds. Per Ingesman and Jens Villiam Jensen (Århus, 2001), pp. 78–104.

By about 1500 there were only relatively few powerful magnates left in Denmark. The majority of noblemen owned fairly small estates. However, this altered distribution of land was not simply the result of demography, land prices, and rents: it was also caused by the inheritance praxis observed in the Middle Ages.⁹ By the end of the medieval period, some 85 per cent of the land was concentrated in the hands of an exclusive elite: of this, the Crown owned 10 per cent, the Church (including religious foundations) 40 per cent, and the nobility 35 per cent. Freeholders who were subject to the Crown account for the remaining 15 per cent of land not directly owned by this elite group.¹⁰ However, the foundations for such an extreme and unequal distribution of the most important resource in Denmark were laid in the eleventh century and consolidated in the twelfth and thirteenth centuries. Concentration of land ownership developed as a continuous process, and estates were constantly redistributed amongst the elite classes throughout the Middle Ages. Following the Reformation of 1536, ecclesiastical and monastic land was confiscated by the Crown.

The fluctuations and distribution of Danish resources

Denmark in the High Middle Ages was indeed characterized by growth in most areas of society and also in the interaction between nature and society. Population growth, the expansion of arable farming, the creation of the medieval village, the accumulation of land, technological innovation, colonization and urbanization, commercialization, the emergence and development of medieval kingship, the rise of literacy and knowledge: these are all key words associated with the period beginning with the eleventh century and running through to the early fourteenth century. They were prosperous centuries in the sense of a tremendous development of Danish resources. But who were the winners and who the losers in this process? During the High Middle Ages a progressive urban population of merchants and craftsmen provided

⁹ "The estates of deceased noblemen were divided between all heirs in accordance with a principle of justice and equality" and this praxis was kept throughout the sixteenth century. Jens Villiam Jensen, "Arv og Godssamling. Skifte af adeligt jordegods 1400–1660", in *Riget, Magten og Æren*, pp. 451–477.

¹⁰ Bjørn Poulsen, "Land Mobility in Late Medieval Denmark", in *Il Mercato Della Terra Sec. XIII–XVIII*, ed. Simonetta Cavaciocchi (Prato, 2003), pp. 629–635.

an economically strong stratum of society. More powerful still, both financially and politically, were the ecclesiastical and lay landowners headed by the king, all of whom accumulated large estates. These groups were the winners, as were many peasant landowners in the first centuries of the High Middle Ages. The losers were the landless labourers and the many peasant landowners who gave up their farms in the late thirteenth and early fourteenth centuries. These were the people who suffered from reduced standards of living and a curtailed life expectancy. In the fourteenth century perhaps half the rural population could be classified as poor.

The high mortality caused by successive plague epidemics from the mid-fourteenth century suddenly turned this situation upon its head. Survivors of the Black Death enjoyed an improved standard of living, and life expectancy rose as a result. Many peasants became rich, while literacy and the enjoyment of luxury commodities became more accessible. The reverse side of the coin, however, reveals an increasing number of landless men: by the end of the Middle Ages these unfortunates were barely better off than their predecessors were around 1300. There were new dues to pay, combined with a demise of the social and legal status of the peasantry which began as early as the thirteenth century but only became a serious burden at the very end of the Middle Ages. Better opportunities for commercially viable subsidiary occupations in the Late Middle Ages, however, enhanced the chances of survival for many smallholders and cottars.

The upper stratum of society also had its winners and losers. Powerful and enterprising lords, both ecclesiastical and secular, took advantage of the cheap price of land and the distress of the gentry and peasants resulting from a shortage of manpower and falling rents: they bought up land and continued to concentrate landownership in fewer and fewer hands, a process begun in the High Middle Ages. These people—and the Crown, too,—became incredibly rich. Many of them made their fortunes by increasing their livestock, a lucrative alternative to arable farming in the years of acute labour shortage. In consequence of this move towards animal husbandry, the Late Middle Ages saw a flourishing export of animal products. The prosperity of a small number of magnates and a fairly numerous middle class comprised of peasants and urban dwellers encouraged the increasing import of German beer, cloth, wine, and spices, as well as a division of labour between town and country. Many new crafts came into existence, and the organization and status of craftsmen progressed. At a time of retarded population

development the urban population grew. New towns were founded and the population of many old towns increased.

The image of a booming economy in the High Middle Ages followed by a late medieval recession does not adequately reflect the development of Danish resources as examined in this book. The High Middle Ages cannot be viewed simply as two hundred years of prosperity; conversely the Late Middle Ages were characterized as much by growth as by recession.

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INDEX OF PERSONS AND PLACES

- Aabenraa 214, 216, 220, 249, 355,
 359, 366–367
 Aagaard, manor (Ågård) 185 n. 93, 211
 Aalborg, *see* Ålborg
 Aalst 368
 Aardenburg 367
 Aarhus, *see* Århus
 Aastofte 174
 Aastrup 152
 Abel, king of Denmark (1250–52) 138
 Abkær 9, 13–14
 Absalon, archbishop 34, 35 n. 34, 85,
 90, 171 n. 30, 172, 182, 301, 388
 Adam of Bremen xviii, xx, 25–26, 45,
 51, 112 n. 3, 114–115, 115 n. 12, 117,
 165, 230 n. 8, 302, 306, 354, 356
 Adolf VIII, duke of Schleswig, count of
 Holstein 286
 Almindingen 5, 16
 Als 163, 212, 355, 369 n. 55, 398
 Alsted 172
 Amager 119, 149, 167
 Amalrici, *see* Bertrand Amalrici
 Americas, the 335
 Amsterdam 243
 Andernach 369–370
 Anders Oggels, peasant 107
 Anders Sunesen, archbishop 35, 86,
 92, 95, 145–147
 Angeln (Angel) 4, 114
 Anketil of St Albans, English
 monk 262
 Antwerp 367, 372
 Arnold of Lübeck, chronicler 243,
 367, 374
 Arresø 157
 Årslev 193
 Assens 98, 103, 372
 Asser, archbishop 172, 204
 Astrad Trugilson 168
 Astrath, canon 95
 Åsum, herred 317, 320
 Avnø 271
 Axel Lagesen Brok, nobleman 178
 Baie de Bourgneuf 364
 Baldouin IV, duke of Flanders
 (988–1035) 89
 Ballerup 180 n. 75, 181 n. 77,
 188–189
 Baltic, the xx, 31, 45, 50, 53–54, 57,
 66–67, 76, 123, 135–136, 138, 168,
 221, 232, 242–45, 253, 256–57, 261
 n. 8, 302, 349, 353, 356–357, 359,
 364–365, 374–376, 378
 Bara, herred 6
 Barcelona 357
 Bårse, herred 180, 180 n. 75
 Bay of Godthåb 62
 Belgium 13, 70–71, 348, 370
 Bergen 370
 Bernt Notke, artist 289
 Bertrand Amalrici, papal tax-collector
 331
 Billitze 137
 Birger, archbishop 16
 Bisserup 159
 Bistrup 179, 180 n. 76
 Bjäre, herred 208
 Bjerger, herred 320
 Blæsbjerg 183
 Blekinge xx, xxii, 5, 11, 21–22, 45,
 127, 127 n. 42, 128 n. 44, 129 n. 47,
 144, 163–164, 206, 218, 254, 329
 n. 21, 346, 365
 Bohemia 66, 72, 74, 131, 330, 335
 Bohuslän 20, 374, 376
 Boller, manor 208
 Bologna 95
 Bonderup 338
 Børglum 232
 Bornholm xxii, 5, 16–17, 21, 138,
 143, 162, 249, 267 n. 24, 302, 329
 n. 21, 343, 346, 369, 372
 Bornhöved 242
 Borum 188
 Bos, lake 12–14
 Boston 364, 367
 Bråde 178, 180 n. 74
 Brahetrolleborg 14
 Braunschweig 375
 Bredstedt 248, 275, 286
 Bremen xviii, xviii n. 15, 115 n. 12,
 136, 219, 243, 284, 354, 359, 365,
 375
 Brink, manor 97–98, 109, 119, 181

- Broby 173
 Brok, *see* Axel Lagesen Brok
 Brøndby 167
 Bruges 364, 367, 370, 373, 377
 Bukhara 353
 Bulbjerg 369

 Cammin 243
 Christian I, king of Denmark
 (1448–81) xxii, 7, 106, 247, 278, 314
 Christian II, king of Denmark
 (1513–23) xxii, 19, 21, 100–101, 255, 278, 291, 314–315, 335–336, 396
 Christian III, king of Denmark
 (1534–59) 17, 273, 336, 396
 Christian Skreder, tailor 270
 Christine, queen 20, 102–103, 105, 105 n. 100, 194, 285, 287, 320
 Christoffer I, king of Denmark
 (1252–59) 332
 Christoffer II, king of Denmark
 (1320–26/1330–32) 396
 Christoffer the Bavarian, king of Denmark (1440–48) 335
 Christopher Parsberg 101
 Claus Gjordsen, chancellor 101
 Claus Teglbjørder, tile maker 292
 Clausholm, manor 185–187, 194
 Cnut the Great, king of Denmark
 (1018–35) xviii, 326, 328
 Cnut VI, king of Denmark
 (1182–1202) xix, xix n. 17, 6, 136, 168, 182, 331
 Cnut, St, king of Denmark
 (1080–86) xviii, 6, 52, 70, 89, 91, 94, 243, 268 n. 28, 303, 329–330, 359–360
 Cologne 70, 376
 Comhaer, *see* Gerrit Gozewijnszoon
 Copenhagen (København) 4, 11, 38, 43, 59 n. 2, 94, 96–97, 100, 103–104, 108–109, 137–39, 149, 156, 158–161, 175, 180, 180 n. 76, 217, 222, 236, 236 n. 26, 238–240, 245, 248–250, 255, 274–276, 278–279, 282 n. 92, 287–288, 290, 301, 348, 366–367, 371–372, 375, 393–394
 Cracow 375

 Dalby 88–89, 166, 166 n. 8, 194, 369
 Dalby Hage, deer park 220
 Dallund, lake 29
 Dannevirke 299, 359

 Danzig (Gdansk) 22, 242, 256, 284, 375
 Dargun 30–31
 Darum 95
 Den Briel 243
 Detmar, chronicler 66–67, 67 n. 25, 73, 73 n. 40
 Deventer 283, 368–369
 Ditlev Enbeck, merchant 104–105, 286, 289
 Ditmarschen 355
 Dnieper, the 353
 Donatus, Lombard mason 263
 Dorte Vævekone 216
 Dråby 154, 180 nn. 73, 77
 Drachenfels 369
 Dragør 54–55, 221, 244, 246, 375–376
 Dragsholm, castle 38, 54–55
 Dudo, canon of Saint-Quentin 111, 135

 Ebbe Skinder, skinner 271
 Eckernförde 290
 Edomsherred 48
 Eggebæk 15
 Eider, the xxii, 4, 31, 34, 354
 Eiderstedt 19, 48, 74, 102, 136
 Einbeck 289, 366, 395
 Elbe, the 30, 131, 136, 375
 Elbing 368
 Eline Gøye 183, 185–87, 194
 Elleholm 248
 Ellinge 179 n. 72, 180 n. 76, 188
 Elsinore (Helsingør) 4, 22, 114, 247–248, 376, 393
 Enbeck, *see* Ditlev Enbeck
 Endrup 313
 England xvii, xxi, 3, 31, 35 n. 35, 63, 66–68, 70–74, 78, 111, 112, 125, 125 n. 37, 128, 128 n. 45, 129, 134–135, 157, 171, 171 n. 31, 174, 204, 210 n. 56, 243, 252, 256, 274 n. 52, 275, 299, 303, 310, 322, 324, 324 n. 5, 326, 326 n. 8, 327, 330, 338, 348, 357, 364–365, 367–369, 373–374, 377, 379
 Enkhuizen 243
 Erfurt 375
 Eric the Red 62
 Erik Glipping, king of Denmark
 (1259–86) 366, 396
 Erik II Emune, king of Denmark
 (1134–37) 89
 Erik Lam, king of Denmark
 (1137–46) 182, 240

- Erik the Pomeranian, king of Denmark
(1396–1439) 106, 248–49, 254, 277,
335
- Erik VI Menved, king of Denmark
(1286–1319) 367
- Esbern Mule, magnate 85
- Esbjerg 14, 222, 313
- Eskil, archbishop 369
- Esperstoft 15
- Esrum, abbey 4, 6, 11, 99, 136, 157,
170–171, 171 n. 30, 172, 204, 209
- Estonia xx, 66, 92, 94, 128, 135
- Fåborg 152
- Falster xx, xxii, 15, 33, 33 n. 26, 34,
39, 41, 46, 83, 94, 105, 113–114,
118, 131, 137, 140, 151–154,
158–161, 168, 208, 212, 254, 287
n. 118, 294, 309, 355 n. 9, 378,
382, 395
- Falsterbo 221, 243, 245, 268, 372,
375–376
- Fanø 108, 222
- Fårevejle 174
- Farriskoven, forest 5
- Fehmarn xx, 94, 135, 212, 300, 362
- Ferlev 160
- Filso 202
- Fjenneslev 370
- Fjerritslev 48
- Flanders 3, 67, 89, 204, 256, 303,
357, 360, 364, 365 n. 32, 367–369,
373, 373 n. 74, 374, 377, 379
- Flensburg 15, 17, 102–105, 138–139,
220, 251, 267 n. 27, 270, 274, 279,
281, 282 nn. 90, 92, 285–286, 286
n. 111, 287, 287 n. 114, 288–290,
292, 292 n. 143, 320, 355, 359,
366–368, 371–372, 377
- Flintinge 186, 194
- Föhr 19, 137, 163
- Følle 36, 175
- Folmar Jacobsen Lunge, knight 176
- France xxi, 62, 66, 70, 72–73, 174,
211, 275, 289, 310, 322, 348, 373
nn. 72, 74
- Frankfurt am Main 131 n. 54, 376
- Frederik I, king of Denmark (1523–33)
xxii, 17, 100, 283, 315–316, 396
- Frederik, duke of Schleswig and
Holstein (as king of Denmark *see*
Frederik I) 18, 283
- Fredslet 31, 114
- Friesach, mines 330
- Friesia, *see* Friesland
- Friesland xvii n. 5, 136, 219, 230, 362,
369
- Funen xviii n. 14, xx, xxii, 4, 14, 16,
19–20, 23, 29, 43, 46, 49–50, 76,
102–103, 113, 115, 117, 117
n. 15, 118, 132, 144–145, 150–153,
155–156, 158–162, 164, 168, 178,
183, 186, 188, 194, 210, 214, 228,
231, 236, 245, 248 n. 81, 254, 261
n. 7, 267, 267 n. 27, 272, 290, 292,
307, 309, 317, 320, 355, 357, 372,
378, 382, 391
- Fysingå 53
- Ganløse 157
- Gåsekil 248
- Gelting 4, 5
- Gerhard, count of Holstein xxi, 139,
311
- Germany xxi, 11, 13, 25, 31, 62,
66, 70, 72–73, 76–77, 87, 98, 131,
135–136, 157–158, 163, 168, 174,
176, 213, 221, 242, 255–256, 263,
269–270, 275, 289, 294, 324–325,
337, 347–349, 351, 364, 365 n. 32,
368, 371, 373–375, 377, 379,
391–392, 397
- Gerrit Gozewijnszoon Comhaer 283
- Gertrud Nannesdatter 36
- Gevninge 353
- Ghent 367
- Gibraltar 357, 373 n. 72
- Gieltofte 186, 194–195
- Gilleleje 222
- Ginnerup 160
- Gjordsen, *see* Claus Gjordsen
- Gjordsen, family 15
- Gjorslev, village and manor 38,
174–175, 178, 180 n. 76, 194
- Godwine, mint master 326
- Gøl 266
- Goti, stonemason 266
- Gotland 82, 317, 357, 360, 369–370
- Gottorp 102, 212, 275, 289, 291
n. 139, 320, 368, 377
- Græse 184–185
- Gramå, the 5
- Greenland 46, 61–63
- Greifenberg 243
- Greifswald 109, 138, 242
- Grenå 120
- Grevensmühlen 243
- Grevlunda 270
- Gribskov, forest 4–6
- Grindsted 148

- Grundfør 193
 Gudensø, lake 32
 Gudme, herred 228, 261 n. 7, 318
 Gunderslevholm 186–187
 Gunne Smith 267
 Gunner, bishop of Viborg 365
 Gurre, castle 288
 Gyldenstjerne, *see* Mourids Nielsen
 Gøye, *see* Eline Gøye, Mogens Gøye

 Haderslev 272, 283, 290, 355, 359,
 362, 364–367, 369, 371–372, 377
 Haithabu, *see* Hedeby
 Halland xx, xxii, 5–6, 9–11, 19–20,
 20 n. 80, 41, 53, 94, 124–126, 126
 nn. 39, 41, 127, 127 n. 42, 128 n. 44,
 129, 144, 152, 158, 162–164, 172,
 206, 208, 211, 218–219, 237, 254,
 284, 344, 362
 Hallandsåsen 5
 Hallen, manor 211
 Halmstad 237
 Hamburg 89, 108, 115 n. 12, 211,
 222, 243, 256, 289, 354, 365–366,
 369, 375, 395
 Hanover 375
 Hans Knudsen, townsman 18
 Hans Vingård (Wyngarthener),
 printer 290
 Hans, king of Denmark (1481–1513)
 16, 82, 102, 283–284, 291, 316, 336,
 368
 Harald Hen, king of Denmark
 (1074–80) 3
 Harderwijk 243
 Harthacnut, king of Denmark
 (1035–42) 327, 327 nn. 13, 16, 328
 Harz, mines 330
 Hasle 248
 Haslum 36
 Havelse 188
 Havelsemagle 173–174, 180 nn.
 76–77, 188
 Hedeby xvi, 56, 84 n. 16, 166, 199,
 207, 229–230, 232, 260 n. 3, 261
 n. 8, 323, 327, 353–354, 355, 359,
 359 n. 19
 Heligoland 19, 222, 362, 374
 Hellested 152
 Helsingborg 12, 55, 89, 114, 318, 339,
 357
 Helsingør, *see* Elsinore
 Hemming Bodilsen 167, 178
 Henneke Smith, townsman 276

 Henry III, king of England (1216–72)
 73–74, 373, 377
 Herford 375
 Hermann Wittenborg 368
 Herrested 245
 Herrevad 136, 166
 Herstedøster 188
 Hildesheim 95
 Hindelopen 243
 Hindsø 4
 Hinnerup 173
 Hjerting 222, 306
 Hjortholm, manor 38
 Højerup 49
 Højstrup, village and manor 49, 210
 Holbæk 120, 135, 209, 377
 Holland 21, 256
 Hollingstedt 359
 Holmegaard 29
 Holstein xix, xxi, 19 n. 76, 41, 101,
 129 n. 47, 137 n. 70, 139, 311, 324,
 340, 356
 Holtug 152
 Horne 156
 Hørning 260
 Horns, herred 39, 154, 160–161, 180
 Horsens 104, 120 n. 23, 233, 241,
 277, 359, 372
 Huge 222
 Hundsdaale 38
 Hungary xxi, 211, 348, 375
 Huseby 301
 Husum 18, 247, 251, 255–256,
 274–275, 283, 292 n. 142, 355
 Hvidanger 242
 Hydesby 186
 Hynning 15

 Ibn Fadlan 353
 Iceland 62–64, 68, 86, 354
 Ijsselmeer, the 375
 Ishøj 156
 Italy 62, 98, 330
 Iver Axelsen (Thott), nobleman 371

 Jacobus de Ribe 367
 Jægersborg Dyrehave, forest 4
 Jakob Rød, smith 267, 285
 Jammer Bay, the 48
 Jebjærg 36
 Jens Sunesen, magnate 92, 172
 Jep Jensen, townsman 105
 Jernved, forest 4, 31
 Jerusalem 354

- Jihlava, mines 330
 Joachimsthal (Jáchymov) 335–336
 Johan, count of Holstein 139
 Johann Wittenborg, merchant 371
 Jordløse 156
 Jørgen Bodilsen 167
 Jørnl 15
 Jutland xviii n. 14, xix n. 17, xx–xxii,
 4–5, 9–10, 12–14, 17, 19–21, 25–26,
 30, 32, 34–35, 40–41, 48, 50–51, 53,
 86, 87 n. 25, 89, 113, 115, 115 n. 12,
 117, 117 n. 15, 118, 120, 120 n. 23,
 121, 127, 136, 143–146, 148–149,
 152–153, 155, 158, 161–162, 163
 n. 61, 164, 166, 168, 170, 173, 181,
 183–184, 185 n. 93, 187, 189, 191,
 194, 199–200, 202–204, 206–209,
 211, 216–218, 218 n. 85, 219,
 230, 228–233, 236, 238, 243, 248,
 252, 266–267, 267 n. 27, 271–272,
 278, 284–285, 290, 292, 301, 304,
 307–311, 313, 317–318, 324,
 327–329, 332, 337, 341, 344,
 346–347, 353–357, 359, 362, 369,
 376, 378, 382–383, 386, 389–390,
 396
 Jyllinge 179, 180 nn. 76–77
 Jystrup 178, 180 n. 75

 Kalø, castle 318
 Kalundborg 28, 100, 236, 239, 249,
 276, 370, 372, 393
 Kampen 243, 313, 371
 Kappel 228, 252
 Kappelgård 179, 180 n. 76
 Karl Knutsson, king of Sweden
 (1448–57, 1464–65, 1467–70) xxii
 Karlebo 31
 Karrebæk 135
 Kasimir I of Pomerania-Demmin,
 duke 30
 Kerteminde 247, 248 n. 81
 Kiel 243, 289, 291 n. 190
 King's Lynn 365, 375
 Kippinge 154
 Kjeldkjær 184
 Klinte 19
 Klippestrup 160
 Knudshoved Odde 233
 Køge 11, 138, 241, 245–246, 350
 n. 101, 372, 393
 Kolberg 374
 Kolding 103–104, 148, 372, 378
 Kongeå, the 5, 355

 Königsberg (now Kaliningrad) 22, 290
 Korsør 247
 Krabbe, *see* Tyge Krabbe
 Krageholm 9
 Kramnitze 137
 Krenkerup 186–187, 194–195
 Krogen (later Kronborg) 248
 Krogstrup 160
 Kronborg, *see* Krogen
 Kropper Busch, forest 208
 Kruså 288
 Kuditze 137
 Kunderslev 160
 Kutná Hora, mines 330
 Kyndby 56
 Kyrkheddinge 149
 Kysing 173, 173 n. 43

 Læsø 219, 362
 Læsøholm, manor 209
 Laholm 237
 Landskrona 221, 244–245, 247, 250,
 372, 375, 393
 Langeland xx, 103, 105, 215, 286, 294
 Langli 222
 Lars Johansen, knight 36
 Låsby 175
 Lødøje 370
 Leiden 255, 350 nn. 99–101
 Lekkinge 38
 Lemberg 375
 Leofwine, mint master 88
 Lilla Uppåkra 167
 Lille Heddinge 152
 Lille Solt 15
 Limfjord, the 4, 12, 20, 48, 222,
 232, 246, 248, 255, 362, 374, 376,
 393
 Lisbon 357
 List 4, 33, 33 n. 26, 36, 92, 94, 96, 99,
 102, 105, 138, 220, 222, 234, 236,
 250, 272–273, 287, 344
 Livonia 66
 Löddeköpinge 121, 233
 Løgismose 186–187
 Løgum 15, 17, 32, 182
 Løjtved 270
 Lolland xx, xxii, 7, 16–18, 33, 33
 n. 26, 34, 41, 94, 106, 113–114, 118,
 131, 137, 140, 168, 183, 186, 194,
 212–213, 254, 290, 372, 378, 382,
 395, 398
 Lomma 89, 339
 Low Countries 283, 289, 373 n. 74, 374

- Lübeck 18, 66–67, 73, 88, 138, 140,
211, 216, 238, 242–244, 247, 256,
273, 284, 286, 289, 311, 321, 334,
348, 356–357, 359, 364–365, 365
n. 32, 366, 366 n. 39, 367–369,
371–372, 374–376, 391, 391 n. 2,
395
- Luder Klippenmaker, clog maker 270
- Lund, town in Scania 89, 166–167, 220,
229–230, 234, 239, 329, 339, 347, 355
- Lund, village 49
- Lunde, herred 318, 320
- Lundenæs, len 102, 218
- Lunderup 160
- Lüneburg 284, 357, 362, 364,
374–375
- Lunge, *see* Folmer Jakobsen Lunge
- Luntertun 248
- Lustrup 307
- Lyckå 248
- Lyngby 31
- Madum 162
- Magdeburg 70, 375
- Magleby 152, 174, 176–177, 180
n. 76
- Magnus, king of Sweden xix, 129,
157, 311
- Majbølle 17
- Malmö 104, 138, 221, 269–270, 278,
281–282, 282 n. 92, 286, 286 n. 118,
289, 291, 348, 372
- Margrethe I, queen of Denmark
(1387–97 (1375–1412)) xxi, 311
- Mariager 248
- Maribo 247
- Mårum 4
- Mecklenburg xxi, 213, 398
- Mediterranean, the xxii, 323, 357,
371, 373 n. 72
- Messina 357
- Mette Albrechtsdatter Bydelsbak 178
- Mette Gøye 185, 186
- Middelburg 368
- Møgeltønder, manor and village 21,
210
- Mogens Gøye 183, 186, 193
- Mols 43
- Møn 11, 33–34, 94, 127, 127 n. 42,
131, 133–134, 212, 290, 342, 347,
347 n. 87, 369
- Morup 6–7
- Mossø, lake 32
- Mourids Nielsen Gyldenstierne,
nobleman 272, 285, 287, 287 n. 113
- Naarden 368
- Nærum 157 n. 45, 180, 180 n. 77
- Næs (Sealand) 233
- Næsbyå, the 20
- Næsbyholm 29
- Næsbyhoved, castle and len 103, 105,
119, 178, 188 n. 102, 320–321
- Næsholm, castle 54–55
- Næstved 99, 120, 167, 215, 233, 236,
240, 245, 247, 249, 271, 283, 286
n. 108, 291, 335, 362, 393
- Nakskov 372
- Namen Jansen, merchant 104, 286
- Nellemose 186
- Netherlands, the 30–31, 47, 62, 66,
70, 72–73, 97–98, 136, 215, 243,
256, 289, 347, 350, 368–369, 372,
375, 377, 391, 397
- Nibe 248
- Nicolaus of St Albans, mint
master 332
- Niels Jakobsen Ulfeld, bishop 96
- Niels, king of Denmark (1104–34) 302
- Nikulás Bergsson 354
- Nils, King 70
- Niss Eyessøn 184
- Niss Tommesen 184
- Nivelles 367
- Nordstrand, *see* Strand
- Nørre Snede 152, 354
- Norsminde 173, 173 n. 43
- Norway xvi, xxi–xxii, 19–20, 20 n. 86,
21–22, 56, 84–86, 88, 129, 134, 256,
314, 326 n. 8, 10, 354, 357, 365, 374
- Notke, *see* Bernt Notke
- Novgorod xx, 359
- Nuremberg 376
- Nyborg 247, 272, 318
- Nyby 38, 158, 175 n. 52
- Nykøbing Falster 105, 287 n. 118, 294
- Nyminde 222
- Nysted 247
- Odense xviii n. 14, 20, 32, 54, 91, 94,
103, 105, 119 n. 20, 120, 136, 166
n. 8, 183, 194, 231–232, 239, 249,
268 n. 28, 278–279, 281 n. 85, 285,
287, 301 n. 10, 317, 320–321, 328
n. 19, 335, 355
- Oder, the 375
- Odinkar, bishop of Ribe 165
- Odsherred 54 n. 46, 96 n. 62, 180
- Oluf Holgersen, nobleman 15
- Oluf Hunger, King (1086–95) 34
- Oluff Jepsøn 183–184

- Omgård 199, 199 n. 16
 Ordrup 160, 174
 Oslo 82, 374
 Ottar xvi
 Ottestrup 188

 Paris xvii n. 6, 95, 109, 211
 Parsberg, *see* Christopher Parsberg
 Peder Bodilsen 167
 Peder Låle 81, 81 n. 1, 82 n. 4, 197,
 197 nn. 2–6, 198 nn. 7–14
 Peder Sunesen, bishop 172, 178 n. 65
 Pederstrup 157, 159
 Pellworm 48
 Per Tegslager, tile maker 105, 294,
 294 n. 146
 Peter Hansen, bell-founder 292, 293
 Peter Hansen, tenant 17
 Peter Skartsen, tenant 306
 Philip of Schwabia, emperor 310
 Pjedsted 267
 Poland xxi, 11, 31, 131, 135, 348,
 364, 365 n. 32
 Pomerania 213, 262, 371, 374
 Poperinghen 367
 Popholt 220
 Porta Westphalica 369
 Povl Laxmand, nobleman 177
 Præstø 137, 246, 247
 Prague 109, 330
 Prawle 357
 Prussia 290, 371

 Raaby 152
 Radsted 106
 Radulf (Ralph), royal chaplain 89
 Ramløse 181–182, 308
 Rammelsberg, mine 324
 Randers 290, 335
 Råskov 49
 Regnerus, Lombard mason 263
 Rendsburg 163 n. 61, 291 n. 139, 313,
 356
 Reric 151
 Reval xx, xx n. 21, 135
 Rhineland, the 66, 348
 Ribe xviii n. 14, 19, 47, 90, 95–97,
 103, 108, 130, 138, 149, 165–166,
 191–192, 199, 206, 209, 213 n. 66,
 218–219, 229–230, 232, 235, 238–242,
 246, 255, 266, 270, 277, 280, 291,
 306–307, 327, 327 n. 13, 329, 332, 341
 n. 65, 353, 357, 359, 362, 367–369,
 371, 373, 377–378, 393
 Ribeå, the 5

 Ribnitz 243
 Richard the Lion Heart, king of
 England (1190–99) 310
 Riko, canon 89
 Ringsted 166 n. 8, 180, 180 n. 75,
 182, 189, 232, 234, 270, 327, 327
 n. 13, 342, 362, 369
 Rold 272
 Rollerup, manor 38, 180 n. 76, 188
 Rollo, Viking chief 135
 Rome 343, 354
 Rømø 108, 207, 222
 Rønne 138
 Rønninge 152
 Roskilde xviii n. 14, 3, 11, 20, 32,
 37–38, 38 n. 41, 45 n. 4, 48 n. 22,
 56, 56 n. 56, 77, 86–87, 87 n. 27, 88,
 90, 95–97, 99, 99 n. 76, 130, 136–137,
 137 n. 73, 138–139, 166, 166 n. 8,
 167–168, 173–178, 180, 180 n. 76,
 181–182, 190–193, 195, 230, 230
 n. 8, 232, 233 n. 16, 235–240, 250,
 263, 273, 276–277, 281, 292, 303, 308,
 314, 327, 329, 331, 341, 345 n. 83,
 353, 354 n. 5, 355, 366, 369–370,
 377, 389, 393, 399
 Roskilde Fjord, the 56
 Røsnæs 4, 220
 Rostock 109, 138, 242–243, 365–366,
 395
 Rügen 139, 262, 343, 362, 374
 Rügenwalde 243
 Rungholt 48
 Ry 248
 Ryd 182
 Ryde (Rüde), abbey 17

 Sæby 248
 Sahara, desert 323
 Saint-Mathieu 357
 Sallinge 156
 Salzwedel 284
 Sarmarkand 353
 Saxo (Saxo Grammaticus), historian
 28, 85, 136, 243
 Saxony 30, 70–71, 232, 324, 335, 375
 Scania xviii n. 14, xix, xix n. 17, xx,
 xxii, 5, 5 n. 9, 6–7, 9, 11, 16, 19,
 25–26, 32, 35, 40–41, 52, 52 n. 37,
 76, 84–86, 88–90, 97, 99, 114–115,
 117, 117 n. 15, 121, 127, 129 n. 47,
 136–139, 144–145, 145 n. 5, 147,
 147 n. 13, 149, 151, 151 n. 30, 152,
 158, 161–164, 166–168, 183, 185
 n. 93, 187, 190, 190 n. 112, 191,

- 194, 200, 204, 206, 208, 218,
 220–222, 229–230, 233–234,
 239–240, 242–245, 247 n. 73,
 254–256, 261 nn. 7–8, 268–270, 277,
 290–291, 305, 307, 309, 311, 316,
 318, 324, 329, 332–333, 341–342,
 346–347, 355–357, 362, 364–365,
 367–368, 371, 374–376, 382,
 386–387, 396
 Schelde, the 369
 Schlei, the (Slien) 31, 53–54, 359
 Schleswig, town 54, 104, 131, 138,
 151, 212, 232, 238, 241, 251, 275,
 278, 282, 292 n. 143, 359–360
 Schneeberg 335
 Schwabstedt 19, 19 n. 76, 99, 99
 n. 73, 178, 217 n. 82, 275, 292
 n. 142
 Schwansen 114
 Schwaz 335
 Scotland 30, 348
 Sealand xx, xxii, 4, 4 n. 8, 5–6, 8–9,
 11, 13, 19–20, 25, 28–39, 31–33,
 33 n. 26, 34–35, 35 n. 32, 37–40,
 43, 48–49, 54, 76, 86, 89, 94, 96,
 102, 113–115, 117, 117 n. 15, 118,
 120, 122, 127, 127 n. 42, 129–134,
 136–137, 144–145, 147–148, 150,
 152, 154, 156–158, 160–162, 164,
 166–168, 170–173, 179–180, 180
 n. 76, 181, 183–184, 185 n. 93,
 186–187, 189, 191, 194, 200,
 204–206, 209–211, 215, 217, 222,
 228, 230, 230 n. 8, 231–233, 236,
 239, 242, 245–246, 249, 261 n. 7,
 267 n. 27, 288, 290, 302–303, 306,
 309, 311, 324, 329, 332, 337–338,
 341–342, 345 n. 83, 346–347, 347
 n. 87, 353, 355, 357, 362, 369, 374,
 382–383, 385, 389–391, 393, 395,
 399
 Selso-Vestby 56
 Serridslev 38, 158–159, 180 nn. 76–77
 Sibberup 175
 Sigerslev 152
 Sigersted 28
 Silkeborg 32
 Simmersted 209
 Simrishamn 221, 244, 355, 375
 Siversted 15
 Sjælsø 31
 Skads, herred 14
 Skærso 183–184
 Skafterup 186
 Skagen, town 247
 Skam, herred 102, 320
 Skamby 19, 155–156
 Skanør 10, 221, 242, 245, 268, 355,
 376
 Skånsø 23
 Skaw, the 222, 357, 375
 Skemminge 247
 Skibby 245
 Skippinge 38
 Skjersø 184
 Slagelse 35 n. 34, 38, 166 n. 8, 180
 n. 76, 194, 232, 267 n. 27, 279, 290,
 327, 327 n. 13, 369
 Slangerup 31, 237
 Sliesthorp 151
 Smedeby 15
 Smørum 31, 180, 180 n. 75
 Snuderup 174
 Søborg 31, 239, 369
 Sokkelund, herred 38, 158, 180
 Solbjerg 38, 158, 175 n. 52
 Solso, lake 12
 Sømme, herred 179, 180 n. 76
 Sønder Gos, herred 102 n. 85, 313
 Sønder Haksted 14–15
 Sønder Tåstrup 159
 Sønderborg 275
 Sorø, Abbey 7, 10, 32, 35 n. 34, 170,
 204, 345 n. 83
 Sound, the (Øresund) 11, 22, 49, 53,
 76, 101, 114, 121, 138, 139, 221,
 222, 244, 245, 246, 255, 316, 347,
 357, 364, 374, 375, 376, 386, 393
 St Gilles-du-Gard (Provence) 232
 St. Jean d'Acre 357
 St. Omer 360
 Starreklint 175, 189
 Staveren 243, 371
 Ste.-Geneviève, abbey 211
 Stege 11, 103, 347 n. 87
 Stensby 155–156
 Stensvedskov, forest 4
 Sterrede 175
 Stettin 374–375
 Stevns 49, 180 n. 76, 369
 Stevns Klint 217
 Stig Andersen 36
 Stockholm 284
 Stolpe 243
 Store Heddinge 249
 Stralsund 243, 273, 366, 371, 376, 395
 Strand (Nordstrand) 47
 Stubbe, manor 54

- Stubbekøbing 137
 Stubberup 181 n. 78, 188
 Stuttgart 290
 Styfnis, *see* Sokkelund
 Sundbyøster 167
 Suså 48, 215
 Svaneke 249
 Svanholm 160
 Svanninge 156
 Sven Estridsen, king of Denmark
 (1047–74/76) 89
 Svend Grathe, king (1146–57) 189
 Svend, bishop 50
 Svendborg 10–11, 103, 118–120, 152,
 161, 254, 267, 279, 285–286, 294, 371
 Sweden xix, xxi–xxii, 67 n. 27, 82,
 113, 129, 129 n. 47, 144, 162,
 213–214, 219, 261 n. 8, 314, 326
 n. 8, 333, 340, 344, 360, 365, 365
 n. 32, 371, 374, 382
 Swein Forkbeard, king of Denmark
 (986(?)–1014) 86, 326, 326 n. 8
 Syllinge 175
 Sylt (Sild) 19, 137, 163

 Tårnborg 239, 247
 Tårnby 119, 149, 152
 Tarragona 357
 Tartu 370
 Tartushi 359
 Tashkent 353
 Tebbestrup 36
 Teutonic Knights, the xx
 Thisted 248
 Thomas thor Schmeden, merchant 17
 Thorkild Baker 263
 Thorup 36
 Tielen 228
 Tillitze 137
 Tim 12
 Tipper 222
 Tirstrup 175
 Tirup 120 n. 23, 121, 123
 Tissø, lake 165 n. 1, 228, 261 n. 7,
 353
 Toager (Swedish: Tvåaker) 7, 11
 Toftum 234
 Toke Smith 260
 Tollerup 179, 180 n. 76, 181 n. 77
 Tolstrup 36
 Tommerup (Tommarp), monastery 99
 Tommestrup 49, 157
 Tønder 46, 238, 272
 Tord Skomager, shoemaker 270

 Tørning, len 106
 Tournai 367
 Tranekær, castle and len 103, 105, 105
 n. 100, 286, 286 n. 109, 294, 348
 Treja 15, 19
 Trelleborg 148, 161, 221, 244, 376
 Trene, the 19
 Treptow 243
 Truelstrup 188–189
 Ture, Cistercian abbot 373
 Tuse, herred 38, 180 nn. 76–77, 194
 Tybjerg, herred 92
 Tyge Krabbe, nobleman 82

 Ulfborg 162
 Ullerup 49
 Ulstrup 160
 Ulveskov, forest 4
 Umeå 370
 Uppåkra 167, 229, 261 n. 7
 Upper Germany 256

 Væ 250
 Værløselille 180, 180 n. 75
 Værum 36
 Væt 36
 Valby 38, 175 n. 52
 Valdemar Eriksen, duke of
 Schleswig xxi, 101, 170, 340
 Valdemar I (the Great), king of
 Denmark (1157–82) xix, xix n. 17,
 31, 34, 168, 360
 Valdemar II, king of Denmark
 (1202–41) xix, 31, 87, 136, 138,
 243, 304, 309, 339
 Valdemar IV (Atterdag), king of
 Denmark (1340–75) xx, 100, 129
 Vallby 149
 Varde 108, 222 n. 104
 Våres 357
 Vårpelev 152
 Vårpinge 204
 Vedbysønder 38
 Veddinge 156, 174
 Vejleby 172
 Vejlelfjord 19
 Vendsyssel xviii n. 14, 34
 Vester Alling 175
 Vester Vedsted 149
 Vesterbygd 62
 Vesterside 222
 Vestre Flakkebjerg 180
 Viborg xviii n. 14, 90, 120, 120 n. 23,
 163 n. 61, 219, 230, 232, 235, 239,

- 250, 259, 290, 290 n. 133, 326, 329,
 354, 359, 365, 393
 Vicko von Geldersen 368
 Videbæk 12
 Vigerslev 38
 Vilhelm, abbot of the monastery at
 Æbelholt 136
 Vindebode 137
 Vindebyholt 137
 Vinderslev 266–267
 Vindinge, herred 272, 318
 Vingård, *see* Hans Vingård (Wyngarthener)
 Visby 372
 Vitskøl, monastery 204
 Volga 353
 Vorbasse 30, 148, 151–152, 199
 Vordingborg 4, 87, 100, 239, 242,
 246, 249, 347 n. 87, 362, 393

 Wadden Sea, the 47, 57
 Walke Widdesen, peasant 107
 Weser, the 369, 375
 Westphalia 66, 232
 Wieringen 243
 Wilamów 370
 William the Conqueror 135
 Winchester 64, 66, 73–74, 274 n. 52
 Wismar 242–243, 270, 289, 365–366,
 395
 Wolgast 243
 Wollin 243

 Ypres 367
 Ystad 138, 221, 244, 280, 372,
 375–376

 Zeeland 368
 Zuiderzee, the 375
 Zutphen 243, 371
 Zwolle 243

 Æbelholt, monastery 32, 120, 122,
 136, 172, 204, 241, 306, 377
 Ælnoth of Canterbury 70–71, 71
 n. 33, 72, 230, 301
 Ælnoth, English monk 230
 Ærø 162, 212, 248
 Ærøskøbing 248, 252

 Øksenmølle 193
 Ølstykke 133, 180 n. 76
 Øm 32, 50, 94, 120, 168, 170–171,
 178 n. 65, 193, 204, 377
 Øm, abbey 168, 204
 Ørbæk 232, 327
 Ørved, forest 4
 Ørwith 31
 Østerbjerg 176
 Østre Flakkebjerg 180
 Øverød 38

 Åbenrå, *see* Aabenraa
 Ågård, *see* Aagaard
 Åhus, manor 205, 205 n. 38, 261 n. 8,
 341 n. 67, 355
 Åkirkeby 17
 Ålborg 16, 20 n. 81, 232–234, 250,
 255, 266, 272, 291, 327 n. 16, 329
 n. 21
 Århus 36, 166, 212, 230, 234,
 240–241, 260 n. 6, 369, 372

SUBJECT INDEX

- Accounts 8, 19, 22, 54, 65–71, 73, 77,
81, 97–99, 101–107, 110, 133, 183,
188, 190, 212, 215, 217, 244, 286
n. 109, 287–289, 292, 320–321, 364,
366, 368, 372, 378, 394, 399
- Adelby 155
- Ægt (the king's demand for haulage)
299–300
- Alder 8–9, 22
- Alderman (consul) 238
- Alminding (common land) 3–6, 10, 16
- Apprenticeship 82, 265
- Arable xxv, 8–9, 11, 14, 25–30, 34,
38–41, 62, 111, 111 n. 2, 112–115,
127, 130, 143–144, 146–151,
155–156, 158–161, 163, 173–174,
174 n. 47, 175 n. 52, 183, 187–188,
378, 382–384, 390–391
- Arable farming 26–28, 41, 112–113,
127, 143–144, 149, 151, 154,
383–384, 391, 395, 400–401
- Archive 87–88, 96–97, 100, 103,
105–107, 280, 391, 394
- Ard, *see* plough
- Armarius (librarian) 90
- Armourer 264, 269
- Arnegæld (urban tax) 237
- Art xvii n. 5, 104, 289
- Arvekøb (urban tax) 235
- Ash 7, 9–10
- Assarts 32–33
- Augustinians 32
- Bacon 119, 188, 362, 373, 379, 393,
397
- Baker 264–265, 275–276, 282 n. 90,
285, 288
- Baptismal fonts 292, 370
- Barber 264, 285, 287
- Bark (for tanning) 8
- Barley 29, 119, 183, 202, 205, 206,
362, 383
- Barn 198, 205, 307
- Bathhouse-keeper 264, 269 n. 32
- Beadworker 265
- Beaker maker 265, 284
- Bear 153, 158–159, 325, 372
- Bede, *see* tax
- Beech 6–9, 16, 17, 29, 114
- Bee-keeping 208
- Beer (*see also* kakebille, travebeer)
20–22, 27, 83, 188, 207, 213, 213
n. 67, 216, 240, 244, 255, 278, 281,
288–290, 321, 357, 362, 365, 366,
366 n. 39, 371–373, 379, 382,
394–395, 401
- Bell 266, 267 n. 27, 268, 284, 290,
292–293
- Belt maker (bælteslager, remmesnider)
264, 270, 286 n. 108, 291
- Benedictines 32, 35 n. 34, 94
- Birch 8, 22
- Birk (separate law district) 32 n. 20,
248
- Birkeret (law used in Scania) 238
- Birketing 396
- Biskopsgave (duty to the bishop) 306
- Bleacher 265
- Boat 19, 56, 213, 222, 254, 290
- Bol (*mansus*, corresponding to English
“hide”) 146
- Bondage, peasant 131, 395
- Bookbinder 265
- Bookseller 290
- Boon work, *see* labour service
- Brazier 264
- Bread 27, 202, 264–265, 281–282,
286, 288, 382
- Bream (fish) 53–54
- Brewer 264, 285, 286 n. 109
- Brick 84, 186, 194, 248, 264–265,
292, 371
- Brick kiln 186, 194, 371
- Brick maker 264
- Brickwork 186, 193–194
- Bridge 356
- Brill (fish) 54
- Bronze founding 267
- Bryde 308
- Brydegård 181, 209, 341
- Bucket maker 265, 294
- Bullion 330, 336, 392
- Butcher 200, 240, 263–265, 265 n. 17,
278, 282, 285

- Butter 107, 119, 183–184, 191–193, 206–207, 288, 302, 313, 342, 344, 362, 373, 393
 By-law 17, 105, 144–145, 270, 278–280, 282, 287, 289, 291, 394
- Cabbage 198
 Calmar Union, Nordic Union xxi, 314, 317, 334
 Candlemaker 265, 284
 Cargo vessels 386
 Carp (fish) 54
 Carpenter 263–264, 271–272, 275, 286 n. 109, 287, 287 n. 118, 288, 292 n. 142
 Carriage maker 265
 Cartage 189
 Cartwheel 215
 Carver 265, 292
 Cathedral school 90, 95, 108, 388
 Cattle 6, 8–9, 15, 29, 48, 72–73, 108, 111, 111 n. 2, 127, 145, 147, 193, 198–200, 206–207, 210, 211, 212–214, 255, 292, 313, 321–322, 340–341, 350, 362, 377, 378, 379, 383, 391–392, 397
 Cattle farming 29, 111, 112 n. 2, 127, 145, 199, 210, 341, 383
 Censer 267, 285
 Chair maker 265
 Chancellery xix n. 19, 87, 89, 92, 100, 103, 250
 Chancellor 89, 90, 95, 100–101
 Chaplain 89
 Charcoal, charcoal burning 8, 14–15, 17, 218, 284, 390
 Charter xxi, xxi n. 23, 10, 32–33, 35, 37, 83, 86, 89, 90–91, 94, 139, 166, 168, 170, 172, 182, 190, 192–193, 247, 299, 301 n. 9, 304, 310, 339–340, 385, 396
 Cheese 183, 192, 206, 302
 Churches, in towns 126 n. 40, 163 n. 60
 Churches, taken by the sea 47
 Churches, the number of 117, 117 n. 15, 130, 236
 Cistercians 30, 32–33, 35 n. 34, 95, 166, 166 n. 9, 167, 170–171, 171 n. 31, 172, 182, 193, 204
 Clearance, clearings 9, 30–32, 41, 114, 150, 157, 159, 161, 383, 391
 Climatic change 45, 56, 61, 376
 Clog maker 265, 270
- Cloth 215, 240–241, 244, 254–255, 264, 268, 273, 277–278, 289, 350, 350 nn. 99–101, 353, 357, 367–368, 368 n. 49, 369, 372–373, 379, 395, 401
 Cloth shearer (*overskærer*) 264, 268, 277–278
 Cloth, homespun (*vadmel*) 215, 273
 Coalfish 54
 Coastline 45–47, 50, 218
 Cod 54–57, 207, 222, 288, 291 n. 139
 Coffin maker 264
 Coinage xviii, 3 n. 3, 309–310, 323–324, 324 n. 5, 328, 330, 332–338, 341, 343, 347, 386
 Colonus (tenant) 182, 389
 Colonists 30
 Colonization, colonize xvii, 4–5, 8–9, 30–33, 39–41, 49, 111–112, 115, 136–138, 154, 158, 383, 384, 400
 Commercialization xxii, xxiv, 27, 354, 400
 Common field 155–156, 158–160, 162, 211, 383–384
 Common field system 144
 Common land 3, 10, 145–146, 149, 159, 200
 Commons 10, 12, 26, 28–30, 34, 147, 206, 209
 Cooper 106, 264, 268, 278, 279, 281, 282 n. 92, 286, 289, 291
 Copper 241, 266, 289, 291 n. 139, 292, 333, 335, 353, 354 n. 5, 364, 365 n. 32
 Coppersmith 264, 266, 292
 Copyhold, records of copyhold (*fastebreve*) 106–107
 Cottars 133–134, 175–177, 179, 181, 185–191, 194, 216, 251, 389, 396–397, 401
 Council, *see* town council
 Cow 197–199, 207, 209–212, 214, 286 n. 109, 288, 311, 320, 362, 383, 397
 Crafts xxv, 140, 227–228, 237, 240, 254, 259–261, 263, 266–274, 274 n. 52, 275, 278, 280, 283–285, 288–289, 292, 294, 341, 341 n. 66, 353, 387, 394, 401
 Craftsmen 82, 84, 105–106, 108, 229, 235, 242, 248, 254, 259, 261–263, 268–284, 287–289, 291–292, 379, 387, 394, 400–401
 Craftsmen, rural 105, 272–273, 284
 Credit 87, 103, 255, 336, 351
 Croft 152

- Crop failure 59, 66–67, 69, 72–74, 96, 373
 Crossbow maker 264, 279
 Crusade tithes 307, 343
 Curia 172–173, 175, 177–179, 181, 188, 204, 209, 301, 301 n. 10, 341
 Curia principalis 174, 177–179, 181, 188
 Curia villicalis 175, 181, 341

 Danegeld 299, 303, 324, 324 n. 5
 Dannevirke 299, 359
 Debasement of coinage 332–333, 343
 Decimantes 133
 Deer, deer park, deer hunting 220
 Demesne 39, 160, 165, 172, 175, 178, 181, 181 n. 77, 185, 187–188, 209, 391
 Demographic decline 130–132, 396
 Demographic growth 22–23, 111–113, 118, 128, 132, 134, 140, 154, 221, 305, 332, 382, 384
 Demographic stagnation 113
 Deserted farms 35 n. 35, 37–38, 130, 158, 176, 390
 Deserted land 34–35, 37
 Desertion 14, 34–35, 35 n. 35, 36–38, 38 n. 41, 39, 41, 129–131, 134, 160–161, 164, 175–176, 245, 390–391, 393
 Diet 27, 118–119, 374, 378, 382
 Dike 21, 47–48, 57, 65, 115, 391
 Disease 59, 70, 72, 122–124
 Dog 82, 197, 221
 Domain economy 317
 Domains, royal 92, 100, 119, 312, 316–317
 Domestic discipline 81
 Dominicans 95
 Dung 205, 207

 Eel 54, 119, 216
 Embede (occupation, guild) 270, 277–278
 Epidemics xxiv, 36, 64, 67–68, 96, 114, 122, 125, 129–131, 134, 161, 245, 390, 395, 398–399, 401
 European arable zone, the 27, 30
 Exactio 38, 174, 179, 181
 Executioner 264

 Falconry 220
 Familia 81, 189
 Family structures 125

 Famine 64–67, 67 n. 27, 68–75, 78, 113–114, 122, 128–130, 173, 333, 373, 381–382, 390, 392
 Farming out, farm 182–183
 “Farming out system” (German: Verlagssystem) 286
 Fencing 8, 17, 147, 198, 200
 Field (*mark, vang*) 173, 198–199, 200–201
 Firewood 3
 Fish bones 53, 56, 119
 Fisherman 215, 264
 Fishing 50, 220, 222
 Fishing grounds 362, 374
 Fishing hamlets 132, 161, 375, 391
 Fishing net 55, 215–216, 220
 Fishing village 49, 222
 Fishponds 35, 145, 183, 193, 193 n. 122, 221
 Flatfish 54, 56, 119
 Flax 119, 233, 362
 Flood 46, 47, 48, 64, 65, 66, 70, 72
 Florin (coin) 348
 Flounder (fish) 54, 55
 Founder 52, 264, 266–269, 279, 284, 286 n. 107, 370
 Franciscans 95, 238
 Frankish realm 228
 Freeholder (*bonde, selvejer, bundones proprias terras habentes*) 308–309, 311, 313, 318–319, 322, 400
 Furrier 286, 265

 Gadestævne 144–145
 Gæsteri (the right to “hospitality”) 183, 312–313, 321–322
 Garden 118, 198, 211, 214
 Gardsaede, gaardsede, gårdsæde 179, 185, 185 n. 92
 Garfish 54
 Geest 114, 161, 187
 Glass 261 n. 8, 289, 353
 Glazier 264, 279, 289
 Glover 264, 266
 Goat 16, 212, 397
 Goldsmith 262–264, 278–280, 282 n. 92, 283, 292, 387
 Grain xx n. 21, 11, 15, 20–22, 27, 29–30, 36, 62, 64–67, 72–74, 77, 131, 147, 177–78, 189, 191–194, 197–198, 200, 202–203, 205–210, 212–214, 240, 259, 263, 302, 306, 307, 312, 321, 340–341, 44, 357, 372–373, 373 n. 74, 377, 382, 384, 395, 397
 Grain prices 66, 74, 77

- Grain production 21–22, 64, 198, 205,
 208–10, 382, 384, 395, 397
 Grain scythe 213
 Grain trade 65 n. 18, 373 n. 74
 Grain yields 64, 66
 Grain, export of 73, 373
 Grain, import of 65
 Grammar school 94, 108
 Grange 119, 170–171, 171 n. 90, 172
 Groat (coin), *see* gros tournois
 Gros tournois (French coin) 311, 333
 Guild (*gilde, lav, broderskab, kompagni*)
 82, 105, 138, 145, 238, 244,
 275–282, 282 nn. 90, 92, 283–285,
 294, 359–361, 386–387, 394
 guild, shared (*fælleslav*) 279
 Guilds of St Cnut, the 359
 Gulden (coin) 255, 336, 348, 350 n. 101

 Haddock 54–55
 Hake (fish) 54–55
 Hanseatic League, the 357
 Harbour 20, 49, 232, 247, 254, 290,
 337, 393
 Hare 197, 220–221
 Harrow 198, 203, 205, 384
 Harvesting 147, 203, 384
 Hatter 264, 289
 Havne, hafne 124, 143, 230
 Hay 15, 27, 123, 197–198, 206
 Hayfork 198
 Hazel 8–9
 Heath 12–14, 26, 28, 145–146, 383
 Heather 8, 12–13, 175, 197, 207
 Hen 183, 191–193, 197, 215, 312
 Herred (district) 6, 14, 39, 92, 102,
 106, 132 n. 58, 143, 143 n. 2, 154,
 158, 160–162, 179, 208, 254, 272,
 311, 313, 317–320, 342
 Herredsfoged (royal officer in herred)
 102, 104, 107, 319
 Herredstinget 396
 Herring 21, 53–57, 119, 197, 215,
 221–222, 242–243, 246, 291, 316,
 347, 357, 362, 364, 373–376, 379,
 386
 Hestehave (“horse garden”) 211
 Hides 211, 240, 244, 259, 265, 286
 nn. 108–109, 303, 362, 379, 397
 Hoard (treasure hoard) 233–234,
 324–325, 327, 329, 329 n. 21,
 337–338, 344–45, 345 n. 83,
 346–348, 350, 353, 386

 Honey 193, 206, 208, 215, 302, 362
 Hops, hop plants, hop-growing 22,
 118, 213, 213 nn. 66–67, 214–15,
 254, 289, 321, 365–366, 373
 Horse 16, 18, 204, 211, 239, 241, 281,
 355, 377
 Horse mill 204
 Horseshoe 203, 267, 281, 286
 Hospital 124 n. 30, 239, 246
 House 248–249, 261–262, 266, 272,
 286 n. 108, 288, 294, 305, 313,
 348, 350 n. 101, 370, 378, 385, 388,
 393–394, 396
 Household (*familia*) 54, 81, 101–102,
 125, 125 n. 37, 126, 126 n. 39, 127,
 134, 143, 148, 214–216, 223,
 250–251, 259–260, 260 n. 3, 262,
 265, 273–375, 285, 307, 317, 342,
 343, 346, 372, 387
 Houting (fish) 53
 Hunting 52, 55, 220–221, 372
 Huseby/Husby 301
 Hvid (Danish coin) 105, 335 n. 47
 Hvide Family, the 32, 167
 Hygiene 122–123

 Ide (fish) 54
 Immigrants 136, 140, 262, 399
 Immigration 115, 136–137, 139–140,
 245, 393
 Individual farms 96, 143–144, 163,
 199–200, 383
 Inheritance 85, 85 n. 18, 115, 125,
 235, 388, 398, 400
 Inne (the king’s demand for labour)
 300, 303–304, 311, 319, 321
 Innkeeper 264
 Inquilinos 179, 188, 389
 Inventory xx, 4, 55
 Iron 11, 218–219, 254, 261, 268, 281,
 284, 286, 364–365, 365 nn. 32–33,
 374, 379
 Ironworking 262, 267

 Joiner 265

 Kakkebille (beer) 290
 Kettlesmith 265, 279, 281, 281 n. 85,
 289
 Kitchen work 289
 Klippinge (coin) 335–336
 Knifesmith 264
 Kongelev (royal lands) 4, 4 n. 7

- Kværsæde (commutation of military service) 303, 307
- Labour service, labour obligation, forced labour, boon work, boon days, week work 165, 175, 183–190, 192, 195, 205, 299–300, 319, 321
- Lamb 119, 183, 191–193, 264, 320, 393
- Landbo (tenant) 305, 341
- Lantern maker 264, 269, 289
- Latin alphabet, Latin literacy 83, 85–86, 88–90
- Law of Jutland, the 10, 10 n. 35, 35, 40, 86–87, 146, 148, 153, 155, 200, 211, 304, 317, 355, 396
- Law of Scania, the 5, 35, 40–41, 84, 86, 90, 145, 147, 190–191, 305, 341
- Law of Sealand, Erik's 35, 86, 145, 147–48, 303
- Law of Skanør, the 243
- Lazar-house 239
- Lead xxiv, 84, 115, 213, 232, 283, 289, 355 n. 9, 364, 368, 379, 398
- Lease 17, 180, 183, 191–192, 194
- Leaseholder 174, 176, 370, 385, 389
- Ledger 87, 104, 391
- Leding (military duty or commutation of military duty) 237, 301 nn. 9, 303, 304–305, 307–308, 310, 313, 319
- Len (administrative area) 100–103, 105–106, 220, 254, 311–313, 316–322
- Leprosy 123–124
- Lessee 125, 181, 191
- Life expectancy 120, 120 n. 24, 121, 122 n. 28, 382, 395, 401
- Lime 9–10, 369, 379
- Limestone 20, 217, 369–70
- Linen 215, 240, 254, 271, 289, 367–68
- Ling (fish) 54–55
- Literacy xxv, 81, 83, 83 n. 11, 84, 84 n. 13, 86, 90, 99, 104, 107–110, 388, 398, 400–401
- Little Ice Age, the 46, 61, 63, 68, 78
- Local trade 353, 355
- Locksmith 260, 264, 275, 179–281, 287
- Loom (vertical, horizontal) 215
- Low German 85, 87–88, 105, 140, 157, 269
- Malt 22, 302, 362
- Malthusian xxiv, 111, 111 n. 2, 112, 129
- Manorial production 111 n. 2, 165–66, 172, 177–178, 182–183, 185–187, 189, 195, 209, 389
- Manorial system 165, 175, 177
- Mansio 167, 172–173, 182
- Manure 8, 155–156, 203, 207, 397
- Margins of arable. Marginal land 113, 143, 161, 382, 384
- Market 21, 54, 103, 114, 176, 211–214, 218, 222–223, 232, 240–244, 246, 248, 278, 285, 288–291, 316, 323, 334, 341, 347, 355, 366–367, 372, 375–376, 392, 395, 399
- Market economy xxiv, 354, 385
- Market production 213, 216, 227, 259
- Market, rural 122
- Market-place 237, 240–241, 244, 247, 254, 262, 265, 282 n. 90, 285, 345, 350, 386, 393
- Marshland 26, 57, 77, 114–115, 136–37, 161, 187, 378
- Marten, marten fur 235, 286
- Mason 263–265, 268
- Mast, masting 6, 8, 22, 27, 208
- Master craftsman 82, 280–281, 287
- Mayor (proconsul, *borgmester*) 238, 278, 283
- Medieval Warm Period, the 60–61, 61 n. 8, 62–64, 68, 75
- Mercenary 314, 317, 336
- Merchant 17, 21–22, 66, 87, 104, 108, 138, 140, 151, 221, 232, 242–244, 254–256, 259, 268, 276, 278, 285–286, 289, 291–292, 321, 339–340, 348, 353, 357, 359–361, 365, 367–368, 371, 375–376, 379, 386, 391, 400
- Métayage 191
- Midsommergæld (urban duty) 189, 235, 237, 240
- Migrants 30, 135–136
- Migration 112, 135–136, 139–140
- Mill (*see also* water mill horse mill, windmill) 167–168, 193 n. 122, 194, 197, 204–205, 237, 288, 321
- Miller 275, 285, 321
- Mint 88, 304, 327, 327 n. 13, 328–329, 331, 331 n. 30, 332–334, 336, 338, 346–347, 387
- Mint master 41, 88, 262, 283, 326–328, 332, 387
- Monastery 17, 32, 99, 120, 136, 166, 166 n. 8, 167, 182, 204, 242, 248, 304, 306

- Monetization 242, 336, 339, 344–347, 386
 Moorland 8, 12–15, 48, 83, 118, 143, 197, 202, 205, 207–208, 218, 384
 Mortality rates 121–123
 Mortar 217, 369

 Natural economy 354, 385
 Needlemaker 264, 266, 269
 Nefgjald xviii, 303
 Nobility 7, 54, 82, 139, 170 n. 22, 178, 211, 220, 299, 304, 313, 319, 330, 368, 372, 389, 395–396, 398–400
 Noble (coin) 15–16, 99, 139, 168, 220, 262, 276, 285, 312, 372, 385, 387, 399
 Nobleman (herremand, adelsmand) 15, 82, 272, 287, 331, 350 n. 101

 Oak 6–11, 16–17, 21
 Oats 27, 119, 183, 202, 205–206, 215, 302, 313, 362, 383–84
 Oldenområdet 4, 39, 160–161
 Ombudsmand (local royal officer) 317
 Open-field system 146–147, 200, 206, 383
 Organ maker 265, 284
 Organist 265
 Ornum 146
 Oven 265, 281, 294
 Overland transport 355
 Overpopulation 111, 129, 390
 Ox, ox-breeding 210, 212, 282, 350 n. 100

 Painter 264, 279, 292, 292 n. 143
 Pannage, *see* mast
 Paper 84, 97, 98, 102, 106, 110, 137 n. 70, 372
 Parchment 83–84, 88–90, 92, 98, 109
 Parchment maker 265
 Pasture 8, 14, 27–29, 39, 113, 147, 149, 160, 162, 174 n. 47, 206, 210
 Paver (brolægger) 265
 Peat 8, 13, 207, 219
 Penning (penny, pennies) 173 n. 40, 239, 307, 323, 326, 337, 353–354
 Perch (fish) 54, 119
 Peter's Pence 307, 342–343
 Pewter 289
 Pigs 6, 8, 27, 123, 183, 193, 197–198, 200, 206–208, 212–213, 288, 320–321, 342, 362, 397

 Pike (fish) 53–54, 119
 Pilgrim 136, 354, 371
 Pine 10–11
 Place names 135, 137, 157
 Plague xxiv, 36, 68, 70, 73, 96, 114, 125, 126 n. 38, 129–131, 161, 168, 245, 280, 390, 393, 395, 399, 401
 Plot, *see* toft
 Plough (*ard*, mouldboard plough) 8, 28, 33, 41, 94, 147, 149, 173, 175 n. 52, 179, 198, 202–203, 209–210, 214, 218, 309–310, 320, 332, 344, 383–384
 Plough tax 94, 236–237, 309–310, 344
 Ploughing 26, 29, 48, 147, 186, 188, 194, 203, 205, 332
 Ploughshare 29, 266
 Pollen analysis 8, 9, 14, 29, 40, 202
 Pope, the 32, 89, 90, 182, 307, 313, 342, 388
 Population density 127, 127 n. 42, 128, 128 n. 44, 129, 382
 Population growth xxv n. 34, 113, 115, 120, 122, 130–132, 154, 381–382, 384, 390, 400
 Population of Denmark, the 124, 126, 126 n. 41, 127, 209, 223, 251, 304, 339, 382
 Population of Sealand and Møn, the 134
 Population size, in towns 250, 261
 Population, decline of 134
 Population, rural 120 n. 23, 121, 126, 126 n. 41, 127–128, 132, 185, 221, 223, 299, 299 n. 1, 322, 350, 389, 395, 401
 Population, urban 17, 121–122, 127, 134, 251–252, 273, 378, 387, 392, 394, 400, 402
 Porbeagle (fish) 54
 Porpoise 55–56, 197
 Port xx, 243, 357, 366, 372
 Porter 264
 Pot founder 268, 269, 279, 286, 286 n. 107, 291 n. 199
 Potter 265
 Pottery 159, 260, 262, 353
 Pottery kiln 216, 284 n. 99
 Price of land 130, 401
 Printer 284, 290
 Proverbs 81, 197–198
 Provincial laws, the 7, 16, 34, 35, 52, 55, 125, 143–145, 145 n. 7, 146–149, 208, 383, 385, 389, 398
 Purse maker 270, 279–280

- Quern 204, 260 n. 3
 Quiltmaker 264

 Rabbit 220
 Rebning 146, 148
 Redskud (the king's demand for labour) 299–300
 Reeds 217, 321
 Renovatio monetæ (coin renewal) 3 n. 2, 239, 310, 329, 329 n. 23, 331
 Rent, land rent (*landgilde, skyld*) 14, 179, 181, 192–193, 239, 305, 308, 312, 322, 340–341, 347
 Rentemester (master of rents) 100
 Retail 254, 367
 Roman Empire 228
 Roof, roof constructions 11, 123, 217
 Rope maker 264, 282
 Royal castle 11, 55, 133, 216, 243, 286, 304, 312–313, 318, 318 n. 75, 319, 320–321
 Royal land, landed possessions of the king, *see also* kongeleiv 237, 300
 Rune stone 85, 234, 260, 388
 Runic stones 360
 Runic writing, runic “alphabet” 83, 109
 Rustici 124–126, 126 n. 41
 Rye 29, 77, 119, 181 n. 78, 183, 188, 200, 202, 205–206, 281–282, 362, 383–384

 Saddler 269, 279
 Salmon 53
 Salt 21, 22, 25–26, 45, 48, 50, 55, 207, 218–219, 243–244, 357, 362, 364, 373–374, 379, 382
 Saw, water powered 21
 Sawyer 85, 288
 Scania markets 139, 244–245, 255, 268, 291, 356, 362, 364, 376
 Scribe 45, 53, 89, 238, 292 n. 142
 Scriptorium 89–90, 100
 Sea level 45–48
 Seamstress 284
 Settlement pattern 113–114, 143
 Settlements, expansion of 9, 114–115, 136
 Share-cropping 191
 Sheep 8, 183, 193, 199, 206–207, 212, 288, 320, 362, 383, 397
 Ship (*see also* boat, skude) 11 n. 40, 18–20, 22, 290, 357, 360–361, 397
 Shipbuilder 263, 284
 Ship-building 22

 Shoemaker 82, 105, 216, 241, 263, 265, 268, 270–273, 275–276, 278–279, 281–286, 286 n. 109
 Sickie 203, 213, 384, 398
 Silver famine, silver shortage, shortage of silver 333–334, 351, 392
 Silver mine 330
 Skaldic verses 83
 Skiben, skipæn, skipen (military and tax unit) 124, 143, 308
 Skilling (Danish coin) 106, 214, 281, 286, 286 n. 107, 287, 287 n. 114, 288, 312, 334, 341 n. 67
 Skinner 271, 278
 Skude 353
 Slave (*træl*) 209, 260
 Slipper maker 265
 Smallholders 129, 132, 133 n. 62, 190, 389–391, 396, 401
 Smith 105, 260, 263, 266–267, 267 n. 27, 268, 270, 276, 280, 286, 287, 287 n. 114, 288
 Soil xvii, 13, 25–26, 29–30, 41, 83, 203, 208, 359
 Specialization 212–213, 235, 263, 266, 268–269, 271–272, 274, 274 n. 52, 279, 289, 294, 387
 Spices 320, 371–372, 395, 401
 Spruce 11
 Spur maker 260, 264, 269, 280
 Stall 240, 265 n. 17, 278
 Staller (royal officer) 17, 102, 106, 214, 218, 220, 254, 317, 319, 329
 State of health 120, 382
 Sterling 281, 333–335, 341, 343, 346
 Stonemason 265
 Stubble-graze 147
 Stud (levy to the king) 302–304, 307, 311, 313, 319
 Stuf 146
 Stylus 88
 Styresmand (man in charge of military expeditions) 304
 Swordsmith 269, 279–280, 281 n. 85

 Tailor 266, 268, 271, 271 n. 41, 272–273, 275, 277–279, 283, 285, 286 n. 107, 289
 Taler (coin) 336
 Tallage 313
 Tanner 264
 Tax (*census regis, nefgjalð, leding*, plough tax, *bede*) 81, 94, 236–237, 302–303, 303 n. 20, 304–305, 307–310, 313, 319, 332, 344

- Tax list 101–102, 336
 Tax state 317, 317 n. 74, 322
 Taxpayers 102, 131–132, 163, 251, 274, 304, 391, 397
 Tenant (landbo, colonus) 209, 234, 239, 304–305, 306, 308, 322, 341
 Tench (fish) 54
 Thatcher 265
 Thing (court/provincial parliament) 35, 230–231–232, 234, 241
 Threshing 188, 205, 384
 Tile maker 275, 284, 292, 294
 Tile oven 217
 Tile woman (*teglkone*) 285
 Tilework, see also Brick kiln 103, 275, 292, 294
 Timber shortage 13, 23
 Tinplate 289
 Tinsmith (kandestøber) 264
 Tithe 32–33, 133, 162, 299, 306–308, 322, 342–343
 Toft 148–149, 235
 Toll roads 356
 Torp, torph (hamlet, small village) 150, 154–155, 159–160
 Tournaments 82
 Town xviii, xxi, xxv, 10, 18, 20–21, 45, 49, 51–52, 54, 57, 67, 84, 87–88, 94, 98, 99, 101, 103–105, 108, 114, 118, 122, 126–128, 137–139, 145, 161, 163 n. 60, 189, 197, 203, 211–213, 218, 227–230, 230 n. 8, 231–257, 261–266, 272–286, 289–292, 295, 302–304, 309, 316, 327–329, 332, 335, 337, 345, 349–350, 353, 355–357, 359–360, 362, 366–372, 375–376, 379, 386–387, 392–394, 401–402
 Town archive 97
 Town council (byråd) 22, 97, 98, 104–105, 253, 255, 275, 277–278, 284, 287, 291–292, 394
 Town court (byting) 97
 Town school 108
 Trachyte 369
 Trade balance 256, 335, 335 n. 47
 Trade routes 51, 122, 232
 Travebeer (from Lübeck) 216, 366, 366 n. 99
 Travertine marble 370
 Trelleborg 148, 161, 221, 244, 379
 Tribute xvii, 260, 299, 302, 324–325, 339, 354, 385
 Tufa 369–370
 Tuna 54
 Turbot (fish) 54–55
 Two-field system 146, 200, 383
 Ummeland 357, 375–376
 Ummelandsfahrer,
 Ummelandsfahrt 243
 University (Paris, Prague, Rostock, Greifswald, Copenhagen) 34 n. 27, 35 n. 34, 46 n. 6, 95, 108, 109, 109 n. 112, 247 n. 26, 273 n. 49
 Urban growth 10, 51, 230, 232, 246–249, 256, 269, 351, 393
 Urbanization 27, 127, 221, 230, 232–233, 235–236, 242, 245, 247, 248, 251–252, 393–394, 400
 Værfter 46 n. 11, 115
 Værn (protection, protection money) 308, 322
 Vallby 149
 Village crafts 271
 Village green 148, 152
 Villicus (vilici) 207, 237, 304
 Vornedskab 131
 Wage-labourer, paid labourer, mercenarius 165, 189, 190
 Wages, day wages 181, 287, 288, 294, 349
 Wagon 16, 18
 Waste 28–29, 34, 36–37, 39, 145, 158, 175, 241, 259
 Wasteland 27, 30, 35, 35 n. 34, 36–37, 41, 118, 146, 155, 382, 384
 Water mill 197
 Watermill 193
 Wax tablets 88, 104, 109
 Weaver 216, 259, 269, 275, 279, 284, 289
 Weever (fish) 54
 Whale (sperm whale, white whale, killer whale) 52, 55, 197
 Wheat 29, 64, 119, 197, 206, 212, 281–282, 362, 397–398
 Wheel plough 111, 147
 Whiting (fish) 54
 Windmills 193, 194, 204
 Wine 67, 244, 320, 371–372, 395, 401
 Witten (German coin) 333–334
 Woodland 3–7, 7 n. 21, 8–9, 11–12, 14–18, 23, 26, 28–31, 113, 118, 175, 183, 198, 205–209, 211, 312, 382–383, 390
 Wool 192, 207, 215
 Wool carding 215